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United States Department of Agriculture

Forest Service
Equipment
Development
Center

5100—Fire

San Dimas, CA

May 1985

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Spark Arrester Guide

ORIGINAL

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MAY 1985

Spark Arrester Guide

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* * * * * *

Forest Service–USDA
Equipment Development Center
444 East Bonita Avenue
San Dimas, California 91773

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FOREWORD

The *FOREST SERVICE MANUAL* provides that all gasoline, diesel, and steam-powered equipment used in and around logging or other woods operations must be equipped with effective spark arresters or mufflers. Exhaust-driven turbocharged engines do not require spark arresters (see FSM 5113.32a-4). A spark arrester is defined as any device which traps, or destroys by pulverizing, a specified percentage (usually 80 percent or more) of exhaust particles to which it is subjected. Most qualified spark arresters employ the trap principle and those that do must have a provision for cleaning, such as a clean-out plug or cover plate.

Appropriate Standards called out under Sections I, II, and III of this Guide establish the minimum performance and maintenance requirements of spark arresters for internal combustion reciprocating engines to be operated in or near grass, timber, brush, and other forest fuels. The Standards require that each arrester shall be permanently marked with the manufacturer's identification or trademark. This must include the model designation. The words "Qualified" or "Approved" are not required, but the model number must exactly match that on the Qualified List. If an arrester will not perform satisfactorily in either direction of flow, the inlet and outlet must be permanently marked.

The U.S. Department of Agriculture maintains a spark arrester test facility at the Forest Service Equipment Development Center, 444 East Bonita Avenue, San Dimas, California 91773. About 500 spark arresters have been tested in one or more positions under Standard 5100-1a. Qualified spark arrester lists are maintained and published by the Center. Federal and local laws and administrative requirements prescribe when and where arresters are required. During periods of very high or extreme fire danger, arresters meeting these Standards will not give complete protection against exhaust spark fires. Additional measures, including shutdown of operations, may be required during such periods.

This *SPARK ARRESTER GUIDE* will help you identify spark arresters qualified for use on National Forests.

In using this ***SPARK ARRESTER GUIDE*** to identify arresters, follow these instructions:

I. GENERAL PURPOSE SINGLE POSITION SPARK ARRESTERS

First, look for the manufacturer's name and model number on the body of the arrester. These may be stamped in the metal body or they may be on an attached metal plate. If identification is established, refer to the "Qualified and Rated" list on page 271.

When the arrester cannot be positively identified, the following procedure should be used:

1. **MEASURE** the outside diameter of arrester's inlet. Establish the inlet size: "Small" (1½ inches or less); "Medium" (1 1½ to 3 inches); or "Large" (over 3 inches).

2. **REFER** to the Identification Key on page 3, and to the proper size–Large, Medium, or Small. From the Shape and Description columns, the Make and Model can be established.

3. **TURN** to the Catalog Section, beginning on page 13, and check each Make and Model possibility. From the photo and drawing, identify the spark arrester.

4. **CHECK** the "Qualified and Rated" list beginning on page 271 and establish if the arrester is qualified.

5. **NOTE** that absence of an arrester from these lists indicates the arrester may not have been tested and reported on.

Some two-stroke cycle engines may require higher back pressure. An arrester may be used above its rated flow provided it maintains qualifying arresting efficiencies at all levels of use. Arresters that do not have adequate efficiencies above their rated flow will be designated in the "Remarks" column of the Qualified and Rated list and are not qualified to operate in applications where they may be inefficient. With this exception, a qualified arrester properly installed and maintained is acceptable legally regardless of size or rated flow. It is the owner's business if he chooses an arrester too large or too small, even though the cost may be excessive or the back pressure too high.

Turbochargers qualify as efficient spark arresters when all gasses pass through the turbine wheel. The turbine wheel must be turning at all times and there must be no exhaust bypass.

II. MULTIPOSITION SMALL SPARK ARRESTERS

First, look for the manufacturer's name and model number on the body of the arrester. These may be stamped in the metal body or they may be on an attached metal plate. If identification is established, refer to the "Qualified and Rated" list on page 463.

When the arrester cannot be positively identified, the following procedure should be used:

1. **DETERMINE** the make and model of power device the spark arrester is mounted on. Since multiposition spark arresters are generally made for a specific application this should provide a strong indication as to who the spark arrester was manufactured by.

2. **DETERMINE** if the spark arrester is a screen-type or one of another design. Refer to the identification key, beginning on page 314.

3. **CONSULT** the catalog section beginning on page 315, for specific information on shape and dimensions. If a spark arrester does not match any of the catalog descriptions it is either an untested model or it may have been tested and failed to qualify.

4. **CHECK** the "Qualified and Rated" list beginning on page 463 to establish if it is qualified.

III. LOCOMOTIVE TYPE SPARK ARRESTERS

First, look for the manufacturer's name and model number on the body of the arrester. They may be stamped in the metal body or they may be on an attached metal plate. If identification is established, refer to the "Qualified and Rated" list on page 505.

When the arrester cannot be positively identified, the following procedure should be used.

1. **DETERMINE** if it is an external arrester (mounted on exhaust stack above locomotive) or an internal arrester (mounted below the locomotive profile). There are very few external arresters so they can be checked quickly. Refer to the identification key beginning on page 501.

2. **IF** the arrester is the internal type determine how many legs there are to each section. Also, what type of engine it is on.

3. **CATALOG** section for the locomotive type spark arrester has not been developed to date.

4. **CHECK** the "Qualified and Rated" list beginning on page 505 to establish if it is qualified.

NOTE: **At the present time a turbocharged locomotive is considered to be spark arrested. However, there is generally an eductor tube located in the exhaust stack of the engine. Its purpose is to provide positive crank case ventilation. Because of its position in the exhaust stream, carbon and other exhaust constituents tend to form on its surface and, if the tube is not cleaned frequently (at least once a month), the deposits can break loose and cause accidental fires.**

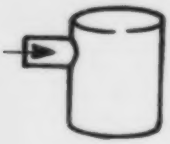
SPARK ARRESTER GUIDE

SECTION I—GENERAL PURPOSE SPARK ARRESTERS

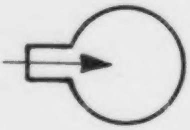
GENERAL PURPOSE SPARK ARRESTERS are tested against USDA Forest Service Standard 5100-1a or the latest revision of Society of Automotive Engineers (SAE) recommended practice SAE J350. Either of these documents establish the minimum performance and maintenance requirements of single position application general purpose spark arresters.

SCREEN-TYPE SPARK ARRESTERS as defined by USDA Forest Service Standard 5100-1a fall into a special category. They are intended for use on small engine applications. All exhaust products must pass through the screen, which has openings of 0.023-inch or less. The effective exhaust area of the screen (total area of all screen openings) shall not be less than 200 percent of the engine exhaust port area at its smallest cross section. Screen material shall be heat and corrosion resistant and shall provide at least 100 hours of service life. These are generally qualified for all the positions described below. See "Screen Type Spark Arresters," page 313 for chain saw application.

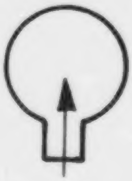
APPLICATION POSITIONS– Four general positions are considered--vertical, horizontal, inverted, and multiposition. The application is determined by the attitude of the inlet pipe irrespective of the main body position or direction of outlet. For example:



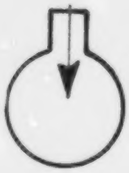
Horizontal



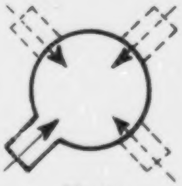
Horizontal



Vertical



Inverted



Multi-

The qualified positions listed include only those tested. In some cases, the manufacturer may claim other positions, but test information at this date can neither support nor refute such claims. An arrester tilted more than 60° from its qualified operating position may not adequately arrest sparks. Therefore, arresters on mobile equipment shall not be mounted more than 45° from the qualified position. See column marked "Application Position Qualified."

RATED FLOW OF ARRESTER is the rate of test gas flow in cubic feet per minute (cfm) at which the corresponding back pressure is one pound per square inch. One (1) psi is the maximum desirable back pressure for most four stroke cycle applications. See column marked "Rated Flow."

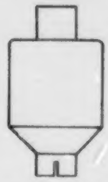
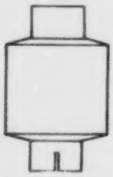
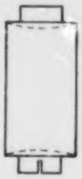
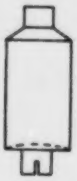
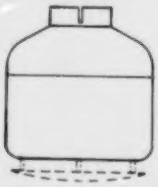
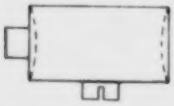
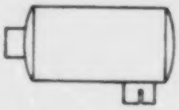
Some two-stroke cycle engines may require higher back pressure. An arrester may be used above its rated flow provided it maintains qualifying arresting efficiencies at all levels of use. Arresters that do not have adequate efficiencies above their rated flow will be designated in the "Remarks" column of the qualified list and are not qualified to operate in applications where they may be inefficient. With this exception, a qualified arrester properly installed and maintained is acceptable legally regardless of size or rated flow. It is the owner's business if he chooses an arrester too large or too small, even though the cost may be excessive or the back pressure too high.

TURBOCHARGERS QUALIFY– Turbochargers qualify as efficient spark arresters when all gases pass through the turbine wheel. The turbine wheel must be turning at all times, and there must be no exhaust bypasses. A straight-mechanical-driven supercharger does not qualify (see FSM 5113.32a-2).

DISCONTINUED MODELS will be called out under "Remarks."

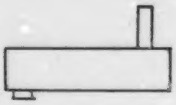
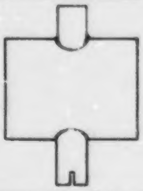
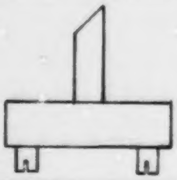
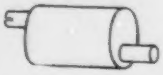
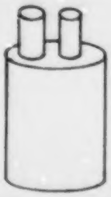
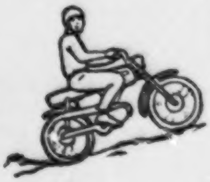
LAWS AND REQUIREMENTS– Federal and local laws and administrative requirements prescribe when and where arresters are required. During periods of very high or extreme fire danger, arresters meeting the Standards will not give complete protection against exhaust spark fires. Additional measures, including shutdown of operations, may be required during such periods. Authority for special measures is provided for in Federal Regulations 36 CFR 251.25 & 36 CFR 261.2, Item J.

SMALL SIZE (Inlet diameter 1½" or less)

	SHAPE	*DESCRIPTION*	*MAKE & MODEL*
4		**BODY CYLINDRICAL** Axial inlet and outlet Inlet end conical; with outlet pipe	HAPCO: 1AA & 2AA NELSON: T-9457, T-9458, T-10291, T-10705, T-13376, T-13944 & U-49110
6		Inlet and outlet ends convex or stepped; with pipes	AIR-MAZE: C19035-3 BRIGGS & STRATTON: B91915 HAPCO: 1AA SAM 13-18 HOEI: 601, 801 NELSON: T-10898, T-13529, T-14106 & T-14406
7		Inlet and outlet end flat or recessed; with pipes or connections	KITTELL: 3510-SA-1 NELSON: T-9098, T-12863, T-14123, T-14425, T-15567, T-15870, U-49114 & U-49115 ONAN: 155-1254
8		Inlet end flat or recessed, outlet end convex or stepped; with pipes	FARR ASPIRATOR: B16647-1 GILL: 5CV20, 5CV23, 5CV24, 6CV26 & 6CV30 JOHN DEERE: AH-80388 NELSON: T-9356, T-9370, T-1145 TECK INDUSTRIES: I-6250-C
10		Inlet and outlet ends rounded; w/o outlet pipe	GILL: 3C, 3C (modified by USDS), & 3CIP
13		Inlet through cylinder wall, axial outlet Cylinder ends flat or recessed	GENERAC: 43953 KITTELL: S1½A NELSON: T-12815F, T-14090, T-14321 & 16988, 18885 & 19820 ONAN: 155-1258 & 155-2048 WAJAX-PACIFIC: AC-1216
14		Cylinder ends convex; with pipes	GENERAC: 43951 NELSON: T-9995, T-14113, T-14315, T-14321, T-15077, 16361, 16362, 16428, 16667, 17043, 19973 & 20147 ONAN: 155-1485, 155-1520

SMALL SIZE (Inlet diameter 1½" or less)

S
M
A
L
L

	SHAPE	*DESCRIPTION*	*MAKE & MODEL*
15		**BODY CYLINDRICAL (Cont.)** Inlet & Outlet staggered through opposite sides of cylinder wall Ends flat or recessed; with pipes	NELSON: T-11708 (P/N T-11892), 15934, 18875, & 19822 YAMAHA: EG 108, EG 109
16		Inlet & outlet straight through cylinder wall Cylinder ends flat or recessed; with pipes	KITTELL: S-T-1½
17			NELSON: 18731 & 19139 WAJAX-PACIFIC: PB-1196
23		Inlet and outlet offset through opposite ends; body round or oval With pipes	GENERAC: 33232 NELSON: T-10093, T-10409 & T-11606
24		Inlet and outlet same end; body round or oval With pipes	GENERAC: 30699 & 31145 NELSON: T-11068C & T-11159
25		**BODY SPECIAL** Motorcycle or Trail Bike	BOMBARDIER-KRIZMAN: KS-250, CA 950 & 1980 COOP: 500A & 500B DAVIS: D-L-260 HARLEY-DAVIDSON-KRIZMAN: H.D.-1, H.D.-2 & H.D.-3 HODAKA-ACE: 90 HODAKA-KRIZMAN: ACE 100 HONDA: 71, 108, 115, 116, 175, 200, 413, 405, 507, 1063 & S-353 HONDA-KRIZMAN: M02-210, 103, 104, 105, 106, 107, 108, 109, 111, 112, 203, 204, 205, 206, 207, 208, 209, 210, 300, 301, 302, 304, 305, 400, 406, 409, 411, 509 & 700 HUSQVARNA-KRIZMAN: KS-500D J&R KRIZMAN: KS-350, KS-500A & KS-500C KAWASAKI: KL-250 KAWASAKI-KRIZMAN: YS-80, KHI KE250B, KS 350 KHI DX080A, KS-500-KDX175, DX-200, DX-250, KL-2500, KS-350 KHI DX080C, KS-500 KHI DX200A, KS-500 KHI LT 110A, KS-500 KHI LT 160, KS-500 KHI LT 200A, KS-500 KHI KL600, KS-500 KHI XT250, & KHI-KL6

–Continued–

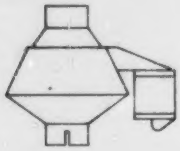
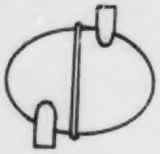
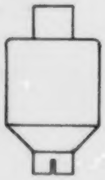
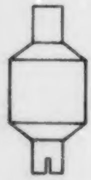
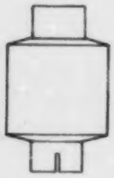
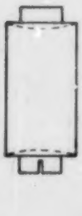
SMALL SIZE (Inlet diameter 1½" or less)

SHAPE	*DESCRIPTION*	*MAKE & MODEL*
—Continued— **25**	**BODY SPECIAL** Motorcycle or Trail Bike	KRIZMAN: II-5H.34B, V-H11, T-H100 & T-H100M NELSON: T-10985, T-11730H, T-11601C & T-13300 POWELL: No. "F" RUPP: 32004 SKYWAY: 300, 510, 1000, 2500 SPARESTER: 602 SUZUKI: 801 SUZUKI-KRIZMAN: K-15, KS-250, KS-250M, KS-350, KS-350-3 (for LT 185), KS-350-3 (for LT 250), KS-351, KS-400 TAYLOR: 100 TILLERY: T-134, T-234 TORQUE: TQ-1000, TQ-2000, TQ-3000, TQ-3000A, TQ-3000B WINTEC: 500 YAMAHA: KS-375B, KS-375C, YHM 167A, YHM 200, YHM 200A, YHM 200B, YHM 220A, YHM 238B, YHM 270 YAMAHA-KRIZMAN: KS-250A, KS-350B, KS-350C, KS-375A, KS-375B, KS-375C, KS-375D, KS-375E YAMAHA-SKYWAY: MOD 250
26	**BODY SPECIAL** Other	BERKELEY: F70-01MC BRIGGS & STRATTON: 391911, 391912, 391313, 392154, 392154A, 396800 CAL TUBE: 12583 CEDCO: Primer-Arrester No. 1 (for Hale HPZZ or CEDCO HPZZ pumper & CEDCO Primer-Arrester No. 2 (for Hale HPZF pumper) DONALDSON: FMM03-2515 & FMM05-0073 FUJI: EY 35/EY 40W, RG 0051 & RG 0120 GENERAC: 37936, 38560, 39081 HONDA: E-300 (for Honda portable generator), E-400, E-600, 113, 405, 405A, 408, S-350, S-351, S-352, S-354, S-355, S-356, S-357, S-358, S-359, S-360, S-361, S-362, S-363, S-364, S-365, S-365A HONDA-KRIZMAN: 600 KAWASAKI: FA 76D, FA 130D, FA 210D, FG 200D, FG 300D, KG-550, KG-4000, KG-5000, 3964/5/6, 3951/2A & 395112 KAWASAKI-KRIZMAN: KG-250, KG-150A K.C.F.D.: 1 McCULLOCH: MPP 600E/800E & MPP 1500E NELSON: T-10792, T-11915, T-11424, T-12760B, T-12761, T-13265, T-13572, T-13599, T-13999, T-14000, T-14002, T-14116, T-14125, T-15078, T-15079, T-15080, T-15341, T-15611, T-15730, T-15731, 15935, 15982, 16006, 16011, 16152, 16300, 16304, 16460, 16572, 16619, 16628, 16752, 16986, 16989, 17088, 17112, 17318, 18753, 18882, 18883, 19825, 19826, 19941, 19975, 19976, 19994, 35347 O&R: 76 PACIFIC PUMPER: Model 2, D-4479 RALPH: PKM II SUZUKI: HS-1, HS-2, HS-3 & HS-4 SUZUKI-KRIZMAN: KS-250 (for SE 1500 & SE 2500) TAYLOR: 200, 300, 400, 400A, 750, 750A, 751, 800, 900, 950 TORO: 39-5930 & 81-0200 YAMAHA: EG 100A, EG 100B, EG 102A, EG 102B, EG 103A, EG 103B, EG 104A, EG 104B, EG 105A, EG 106, EG 107, EG 110 XDUCER: Supertrapp T-99, T-100

IDENTIFICATION

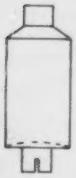
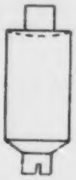
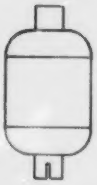
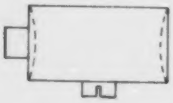
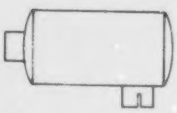
MEDIUM SIZE (Inlet diameter over 1½" to 3" inclusive)

MEDIUM

SHAPE	*DESCRIPTION*	*MAKE & MODEL*
1 	**BODY CONICAL** Axial* inlet and outlet Inlet end conical or stepped; with collection cup	HAPCO: 3H
2 	**DOUBLE CONICAL BODY** Tangential inlet and outlet	CONE: 8-D
4 	Inlet end conical; with outlet pipe	GENERAC: 37924 HAPCO: 1AAXH, 2AAH, 3AA, 3AAXH, 4AA, 4AA (Step Design Top), 4AAH, 5AA, 5AA (Step Design Top), 5AA (Alterred 5A) NELSON: T-13304
5 	Inlet and outlet ends conical; with pipes	HOEI: SA-120 J&R KRIZMAN: KS-650V RIKER: SA-350-1 NELSON: 16302
6 	**BODY CYLINDRICAL** Axial inlet & outlet Inlet and outlet ends convex or stepped; with pipes	AIR-MAZE: C19035-4, -5, -6, -7, -8 CATERPILLAR: 3B5498 DONALDSON: FCM04-5123, FCM04-5214, FCM04-5220 FARR: 20B & 30B HAPCO: 2AA SAM 24-12, 3AA SAM 36-2, 4AA SAM 48-3, 5AA SAM 59-3, SASR-48, SASR-48H, SASR-36H-3AAXH MAXIM: 2" MSA 1 NELSON: T-6277, T-7033, T-7359, T-7515, T-8714, T-8680, T-9304, T-10897, T-13995, T-14105, T-14217, T-14671, T-14754, 17533, U-49125, U-49130, 49119
7 	Inlet and outlet ends flat or recessed; with pipes	FARR ASPIRATOR: C16085, C22001 GILL: 5C20A, 5C20B, 5C23B, 5C26, 6C24 (9" & 12"), 6C26, 6C30 NELSON: T-9099, T-9213, T-9605, T-10860, T-13978, T-13979, T-14066, T-14402, T-14403, T-14816, T-14572, T-14816, 16868

*AXIAL: Along the axis or center line of cylinder.

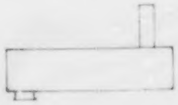
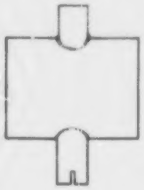
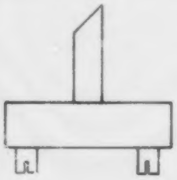
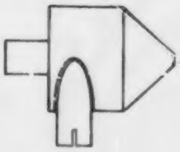
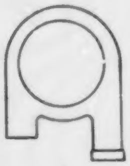
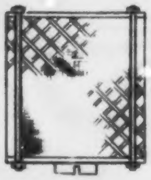
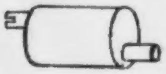
MEDIUM SIZE (Inlet diameter over 1½" to 3" inclusive)

SHAPE	DESCRIPTION	MAKE & MODEL
8 	Inlet end flat or recessed, outlet end convex or stepped; with pipes	AP PARTS: 89931893, 89921908, 89931910 DONALDSON: FCM06-0037, FCM06-5030, FCM07-0068 FARR ASPIRATOR: B16647-1 GILL: 5CV20, 5CV23, 5CV24, 6-C-2030 (12"), 6CV26, 6CV30 HAPCO: SASR-59 INTERNATIONAL: IHC 561217C92 MAREMONT: 4305, 4306, 4307 NELSON: T-9932, T-10115, T-10126, T-11668, T-12502, T-13651, T-13977, T-13978, T-13979, T-14219, T-14222, T-14224, 17480, 19051, 19052, 19053, 19269, 19273, 19383 SOUNDMASTER: 21578, 21579, 21580 STEMCO: 262-1059, 262-1061 TECK INDUSTRIES: I-6250-C, SS-860-2, SS-860-25, SS-860-3 WALKER: 21578, 21579, 21580
9 	Inlet through cylinder wall, axial outlet Cylinder ends flat or recessed; with pipes	HOEI: SA-100, SA-140, SA-160
11 	Inlet and outlet ends domed; with pipes	RIKER: SA-200 NELSON: T-13934J, T-14214, T-14217, T-14223, 49124, 49119
13 	Inlet through cylinder wall, axial outlet Cylinder ends flat or recessed; with pipes	CLARK: 6547049, 6551409 GENERAC: 43952 KITTELL: S2A, S2½A, S3, S3A, 1010HT NELSON: T-13473, T-13716, T-13933, T-13940, T-14316, T-14415, T-14907 or Clark 6552340, 17185, 17254, 17685, 17749, 17750, 18528, 18528A, 18631
14 	Cylinder ends convex; with pipes	INTERNATIONAL: IHC 829640C91 JOHN DEERE: AH-87289 NELSON: T-11336, T-11927, T-11976, T-13935, T-13944, T-13994, T-14316, T-14688, T-15688, T-15689, 16956, 16297, 17746, 17898, 17998

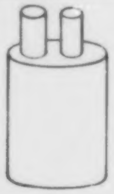
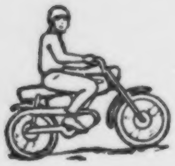
IDENTIFICATION

MEDIUM SIZE (Inlet diameter over 1½" to 3" inclusive)

MEDIUM

SHAPE		*DESCRIPTION*	*MAKE & MODEL*
15		Inlet and outlet staggered through opposite sides of cylinder wall Ends flat or recessed with pipes	IHC: 677817R91 NELSON: T-9219, T-9220, T-10374, T-10968, T-14631, T-15215, 16301, 16547, 16825, 16888, 16956, 16990, 16990A, 17410, 17674, 17765, 18289, 18798, 18493 19005, 19382, 19578
16		Inlet and outlet straight through cylinder wall Cylinder ends flat or recessed; with pipes	KITTELL: S-T-2, S-T-2½, S-T-3 NELSON: 19705
17		Inlet and outlet through cylinder wall (Twin inlets, single outlet) Cylinder ends flat or recessed)	HAPCO: SASR-559 NELSON: 16170, 17371, 17622, 17701, 17899, 18090
19		Inlet tangential, outlet axial End opposite outlet conical; with pipes	CONE: 390
20		**BODY ROUND (DOUGHNUT)** With open or closed center, collection cup	GILL: GSF-200, GSF-300, GSH-200, GSH-300, GSO-300
21		**BODY SCREENED OR PERFORATED** (Generally cylindrical)	AIR-MAZE: 4-FA
23		Inlet and outlet offset through opposite ends; body round or oval	DONALDSON: FMM-9-0510 NELSON: 17334, 17657, 18433

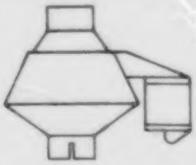
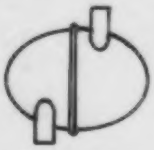
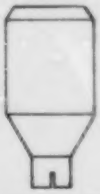
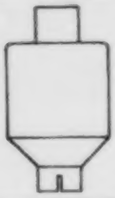
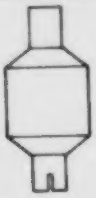
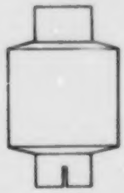
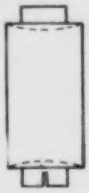
MEDIUM SIZE (Inlet diameter over 1½" to 3" inclusive)

	SHAPE	*DESCRIPTION*	*MAKE & MODEL*
24		**BODY ROUND OR OVAL** Inlet and outlet same end; with pipes	NELSON: T-9489, T-13189, T-13846, 16068 & 16932
25		**BODY SPECIAL** Motorcycle or Trail Bike	BOMBARDIER: CA-952, CA-952-1 BOMBARDIER-KRIZMAN: CA-952 COOP: 400A HARLEY-DAVIDSON: 65234-75P, 65241-75P, 65463-75P HARLEY-DAVIDSON-KRIZMAN: KS-400 HODAKA-KRIZMAN: ACE-100 HONDA: 508 HONDA-KRIZMAN: 303, 402, 501, 508, 509 HOOKER: 26281, 26282, 26283 HUTCHINS: Freeflo No. 1 J&R KRIZMAN: KS-650, KS-800 KAWASAKI-KRIZMAN: KD-400 MAICO-KRIZMAN: KS-500/250.28.505.01 SUZUKI-KRIZMAN: KS-400-1 SUZUKI-SPARESTER: -1, DR-400, PE-175, PE-250, PE-400 YAMAHA: YHM-220, YHM 238, YHM 238A YAMAHA-KRIZMAN: KS-375
26		**BODY SPECIAL** Other	DONALDSON: FMM06-0175 GORMAN RUPP: 46211-018 JOHN DEERE: AH-75693 (Nelson T-10213), AH-75694 (Nelson T-10214), AH-75695 (Nelson T-10215) MURPHY MUFFLER: MM3^{S}2.5 NELSON: T-13502, T-14099, T-14220, T-14630, T-15514, 16025, 16828, 17123, 17470, 19125, 19126, 19830, 30134 SUZUKI-KRIZMAN SPARESTER USDA: FS-3, FS-4 XDUCER: II,X100, Super-Trapp T-102 YUBA: 8000

IDENTIFICATION

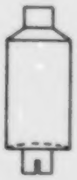
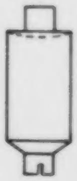
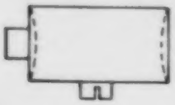
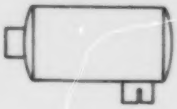
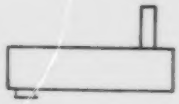
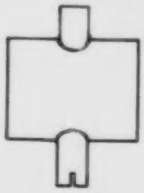
LARGE SIZE (Inlet diameter over 3 inches)

LARGE

	SHAPE	*DESCRIPTION*	*MAKE & MODEL*
1		**BODY CONICAL** Axial* inlet and outlet Inlet end conical or stepped; with collection cup	HAPCO: 61 or 5H, 7A or 7H
2		**DOUBLE CONICAL BODY** Tangential inlet and outlet	CONE: 10-D, 12-D
3		**BODY CYLINDRICAL** Axial inlet and outlet Inlet end conical; w/o outlet pipe	FORESTER: 12X330
4		Inlet end conical; with outlet pipe	HAPCO: 5AAH, 5AA SAM 59-3, 5AAH SAM 59-3, 6AA, 6AB (5" outlet), 6AAH NELSON: T-9460
5		Inlet and outlet ends conical; with pipes	GILL: 8CV50 & 8CV60 HOEI: SA-190, SA-240, SA-280 NELSON: 15818 RIKER: SA-353, SA-500
6		Inlet and outlet ends convex or stepped; with pipes	AIR-MAZE: C19035-9, C19035-10 BURGESS-MANNING: SDMC-4 & SDMC-LP-4 CATERPILLAR: 3B7964 FARR: 40B, 50B GILL: 8C40, 8CV34, 8CV40, 8CV50 HAPCO: 6AA SAM 69-4, 7AB, 7AC, 8AB, SAM 712 NELSON: T-14529, 49135, 49140 RIKER: SA-350. SA-353, SA-400, SA-400A & SA-401
7		Inlet and outlet ends flat or recessed, with pipes	CLARK: CAC-2000 FARR ASPIRATOR: B17345 & C15626 GILL: 6C34 INTERNATIONAL: IHC 707 69C1 NELSON: T-10244, T-12818, T-13977, 16504, 16538, 17973

*Axial: Along the axis or center line of cylinder.

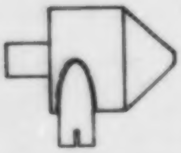
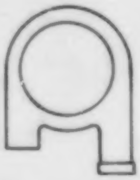
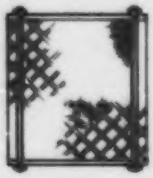
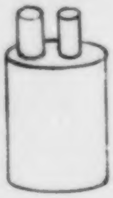
LARGE SIZE (Inlet diameter over 3 inches)

	SHAPE	DESCRIPTION	MAKE & MODEL
8		**BODY CYLINDRICAL** (Cont.) Axial inlet & outlet (Cont.) Inlet end flat or recessed outlet end convex or stepped; with pipes	AP PARTS: 89931921, 89931933 DONALDSON: FCM07-0069, FCM08-0024, FCM09-0091, FCM09-1009, FCM10-0016 FARR ASPIRATOR: B18854 GILL: 6CV34, 8CV34 HAPCO: SASR-69H JOHN DEERE: AH-80388 (Nelson T-11145) NELSON: T-14002, 18018 SOUNDMASTER: 21581, 21582, 21584 STEMCO: 262-1062, 262-1063, 262-1064 TECK: SS-860-35, SS-860-4A, SS-860-5 WALKER: 21581, 21582, 21584
9		Axial inlet and outlet; body oval Inlet end flat or recessed, outlet end convex or stepped; with pipes	DONALDSON: FMM09-0446 NELSON: T-14110, T-14110B, 16001, 17974, 19453, 49160
13		Inlet through cylinder wall, axial outlet Cylinder ends flat or recessed; with pipes	KITTELL: S4, S4A, S5, S5A NELSON: T-11337, 15876 & 20069 WASHINGTON IRON WORKS No. 3
14		Cylinder ends convex; with pipes	JOHN DEERE: AH-84965 NELSON: T-14334, T-12499
15		**BODY CYLINDRICAL** Axial inlet and outlet Inlet and outlet staggered through opposite sides of cylinder wall Ends flat, recessed, or convex; with pipes	NELSON: 17005, 18642, 19062 & 20072
16		Inlet and outlet straight through cylinder wall Cylinder ends flat or recessed; with pipes	KITTELL: S-T-3½, S-T-4, S-T-5 RIKER: SA 6762

LARGE

LARGE SIZE (Inlet diameter over 3 inches)

LARGE

SHAPE	DESCRIPTION	MAKE & MODEL
19 	Inlet tangential*, outlet axial End opposite outlet conical; with pipes	CONE: 1100, 1500
20 	**BODY ROUND (Doughnut)** With closed center; collection cup	GILL: GSF-400
21 	**BODY SCREENED or PERFORATED** Generally cylindrical	AIR-MAZE: 10-FA, 146-FA
24 	**BODY ROUND OR OVAL** Inlet and outlet same end; with pipes	CATERPILLAR: 8N7074-1
26	**BODY SPECIAL** Other	DONALDSON: FMM09-0510 & FMM-9-0510 NELSON: T-10956, 15064A, 16506A & T-16507A STEMCO: 595M XDUCER: Super-Trapp T-101

*TANGENTIAL: Inlet or outlet intersects cylinder wall on a tangent line.

◆ ◆ ◆ ◆

When the general configuration of an unknown arrester has been established by the ***IDENTIFICATION KEY***, this section will be helpful in making the final determination of Make and Model.

Spark Arresters are grouped alphabetically by Model name and not by Manufacturer. Similar arresters are grouped in series. There is an individual line drawing for each spark arrester, and a photo representative of each series precedes the line drawings. Inlet and outlet diameters are shown on each drawing. Arresters tested by the Development Center after date of publication will appear in the ***CATALOG SUPPLEMENT*** section.

Once the identity of the arrester has been established, refer to section 4 "***QUALIFIED AND RATED***" list.

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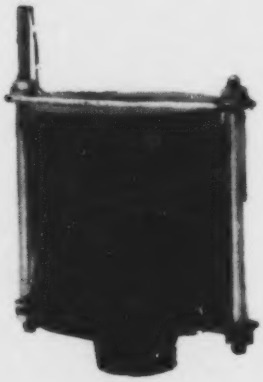
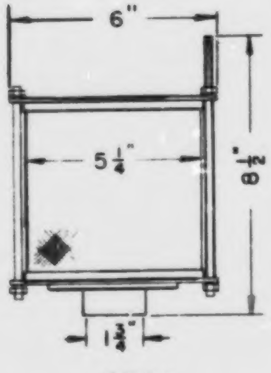
AIR-MAZE—AIR-MAZE CORPORATION



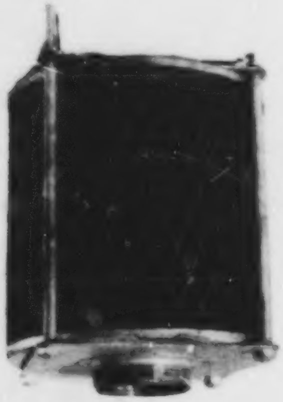
4-FA



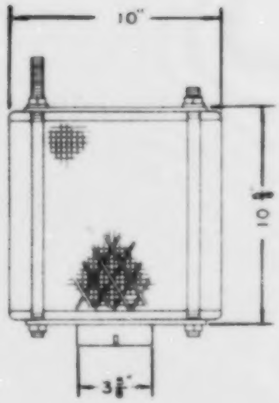
4-FA*

***The model designation indicates a minimum and maximum inlet size. Several inlet sizes are available.**

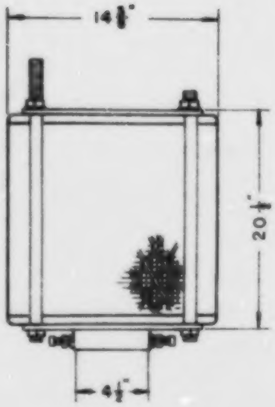
AIR-MAZE (Continued)



10-FA*

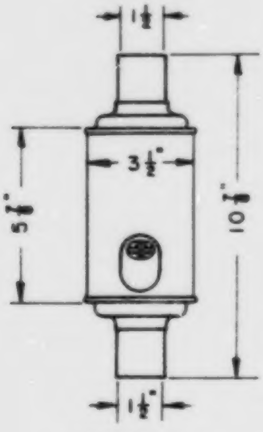


10-FA*

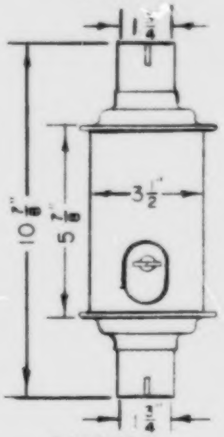

14 5/8"
20 1/4"
4 1/2"

146-FA*

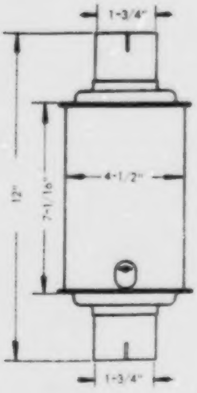
C19035


1 1/2"
5 7/8"
3 1/2"
10 7/8"
1 1/2"

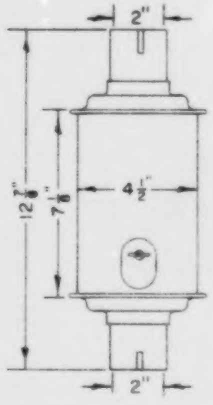
C19035-3


1 3/4
10 7/8"
5 7/8"
3 1/2"
1 3/4

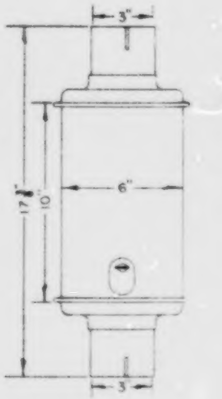
C19035-4


1-3/4"
12"
7-1/16"
4-1/2"
1-3/4"

C19035-5


2"
12 7/8"
7 7/8"
4 1/2"
2"

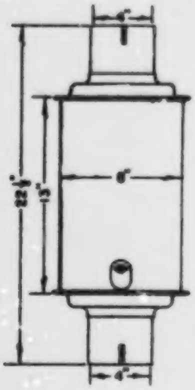
C19035-6



C19035-7 & 8

***The model designation indicates a minimum and maximum inlet size. Several inlet sizes are available.**

AIR-MAZE (Continued)



C19035-9 & 10

Model C19035-7 has 2½" inlet and outlet dimensions are identical. Likewise Model C19035-9 has 3½" inlet and outlet dimensions.

A. P. PARTS COMPANY

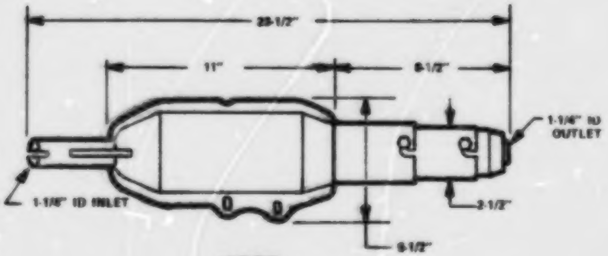
89931893	trademark is	☒	See Donaldson	FCM06-0037	(p. 31)
89931908	trademark is	☒	See Donaldson	FCM06-5030	(p. 31)
89931910	trademark is	☒	See Donaldson	FCM07-0068	(p. 31)
89931921	trademark is	☒	See Donaldson	FCM07-0069	(p. 31)
89931933	trademark is	☒	See Donaldson	FCM08-0024	(p. 32)

BERKELEY – BERKELEY PUMP COMPANY

FOR BERKELEY F70-01MC–SEE CEDCO NO.1 (p. 25)

BOMBARDIER

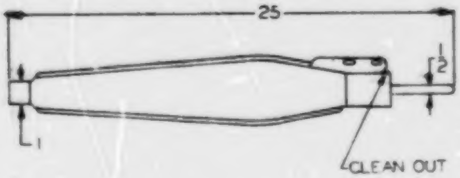
1980


23-1/2"
11"
8-1/2"
1-1/4" ID OUTLET
1-1/8" ID INLET
2-1/2"
6-1/2"

1980

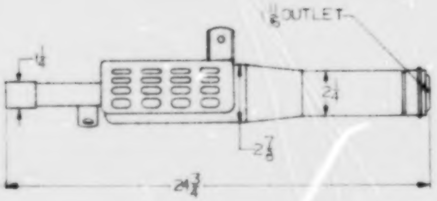
BOMBARDIER-KRIZMAN

KS-250


25
1/2
1
CLEAN OUT

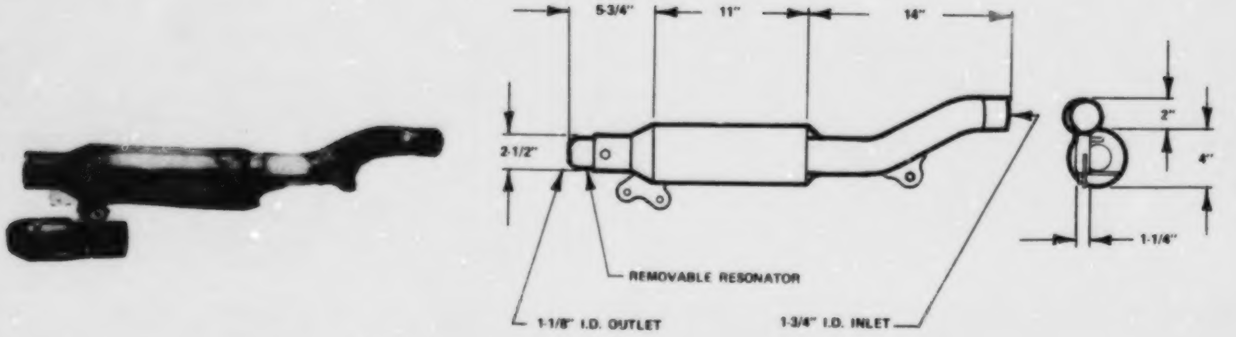
KS-250

CA-950

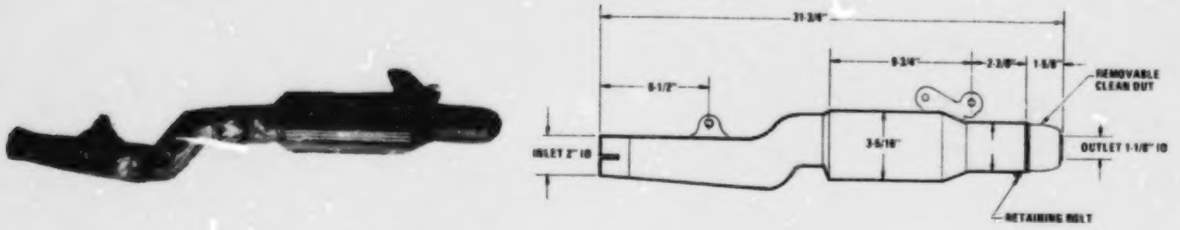

1 11/16 OUTLET
1 1/4
2 1/4
2 7/8
24 3/4

CA-950

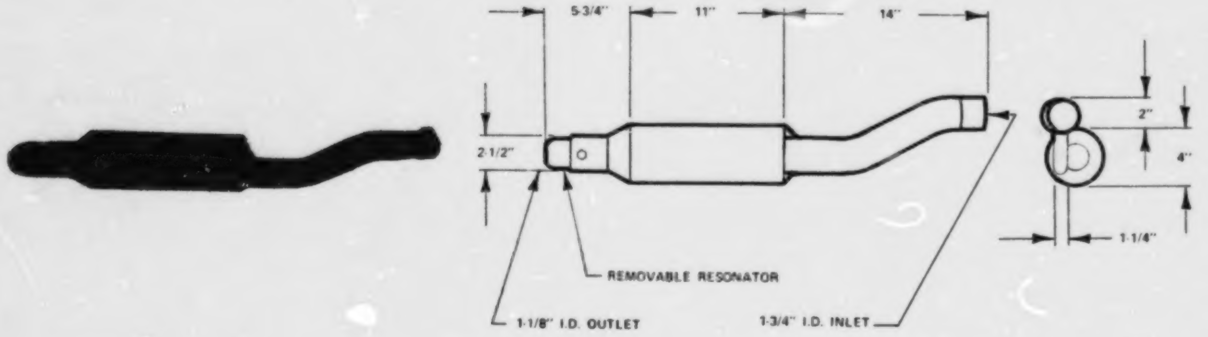
BOMBARDIER-KRIZMAN (Continued)


5-3/4"
11"
14"
2-1/2"
2"
4"
1-1/4"
REMOVABLE RESONATOR
1-1/8" I.D. OUTLET
1-3/4" I.D. INLET

CA-952

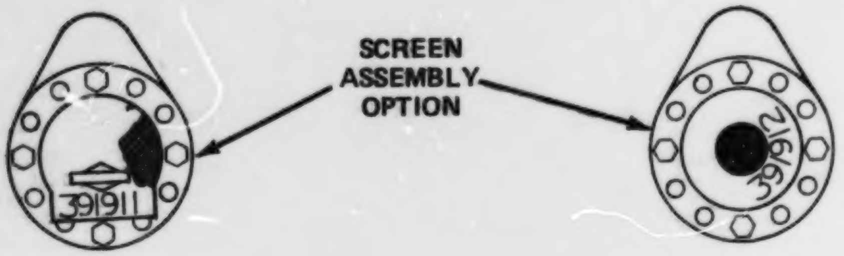

31-3/4"
9-3/4"
2-3/8"
1-5/8"
8-1/2"
REMOVABLE CLEAN OUT
INLET 2" ID
3-5/16"
OUTLET 1-1/8" ID
RETAINING BOLT

BOMBARDIER LIMITEE
CA-952-1


5-3/4"
11"
14"
2-1/2"
2"
4"
1-1/4"
REMOVABLE RESONATOR
1-1/8" I.D. OUTLET
1-3/4" I.D. INLET

CA-953

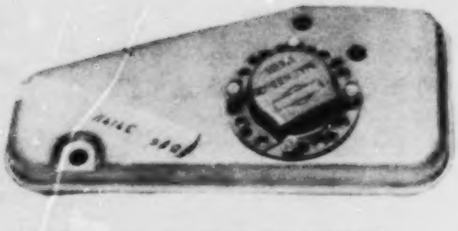
BRIGGS& STRATTON


SCREEN ASSEMBLY OPTION
391911
391912

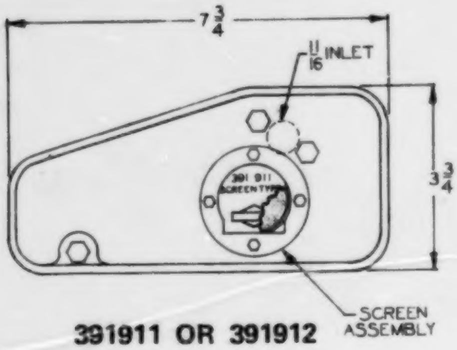
SIDE OUTLET
(Deflected)
391911

CENTER OUTLET

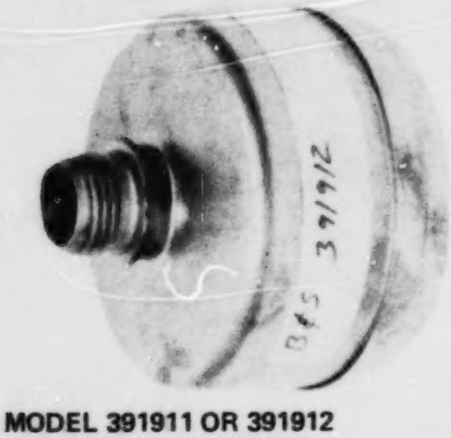
391912



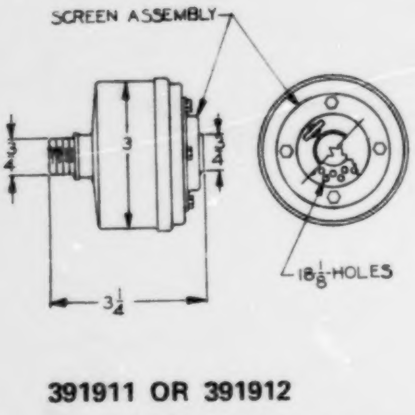
MODEL 391911 OR 391912
DEPENDING ON SCREEN
ASSEMBLY OPTION*


7 3/4
11/16 INLET
3 3/4
391 911
SCREEN TYPE
SCREEN ASSEMBLY

391911 OR 391912



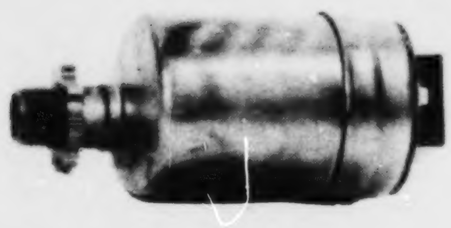
MODEL 391911 OR 391912
DEPENDING ON SCREEN
ASSEMBLY OPTION*


SCREEN ASSEMBLY
3/4
3
3/4
18 1/8-HOLES
3 1/4

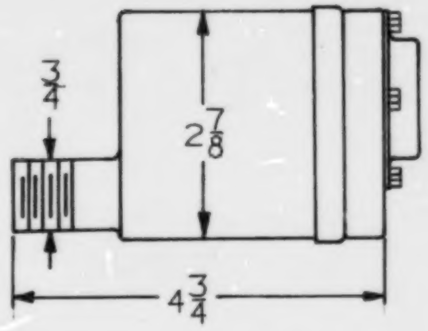
391911 OR 391912

NOTE: See next page for one additional body design using 391911 or 391912.

BRIGGS & STRATTON (Continued)

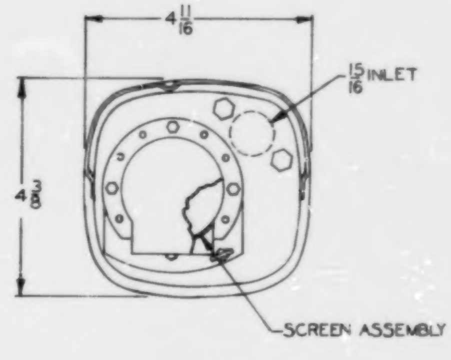


**MODEL 391911 OR 391912
DEPENDING ON SCREEN
ASSEMBLY OPTION**


$\frac{3}{4}$
$2\frac{7}{8}$
$4\frac{3}{4}$

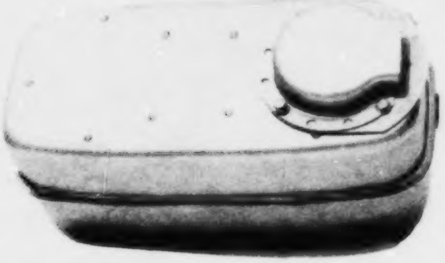
391911 OR 391912

391913

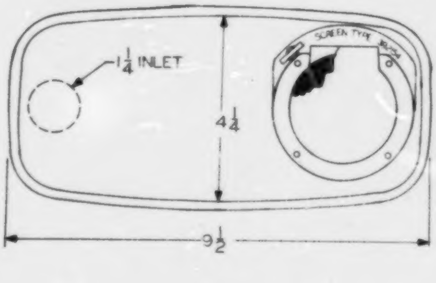

$4\frac{11}{16}$
$\frac{15}{16}$ INLET
$4\frac{3}{8}$
SCREEN ASSEMBLY

391913

FOR BRIGGS & STRATTON 391915 SEE NELSON T-14106



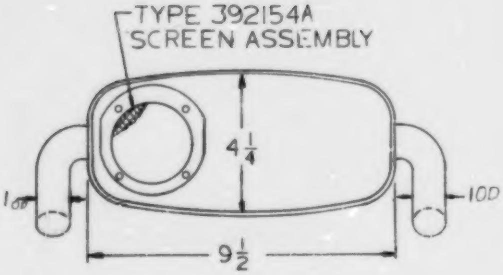
392154


$1\frac{1}{4}$ INLET
$4\frac{1}{4}$
$9\frac{1}{2}$
SCREEN TYPE

392154

BRIGGS & STRATTON (Continued)

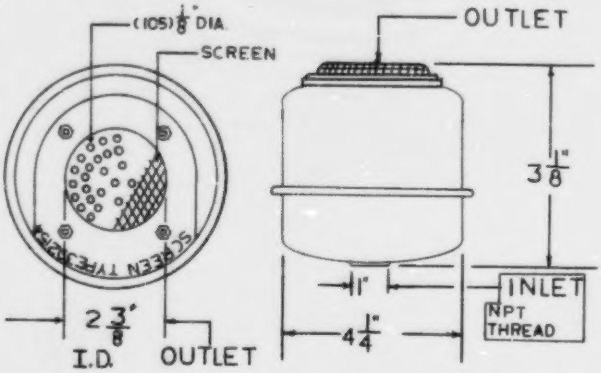
392154A


TYPE 392154A
SCREEN ASSEMBLY
4 1/4
1 OD
1OD
9 1/2

3921549A

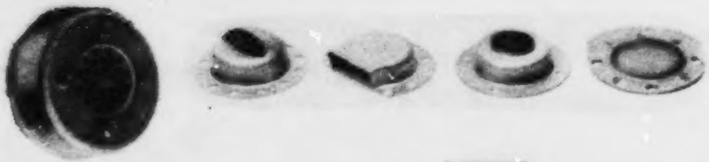
SPARK ARRESTER SCREEN FOR USE ON BRIGGS & STRATTON MUFFLER NOS. 392899 & 393281

392989


(105) 1/8" DIA.
SCREEN
SCREEN TYPE392154
2 3/8"
I.D.
OUTLET
OUTLET
3 1/8"
1"
4 1/4"
INLET
NPT
THREAD

392989

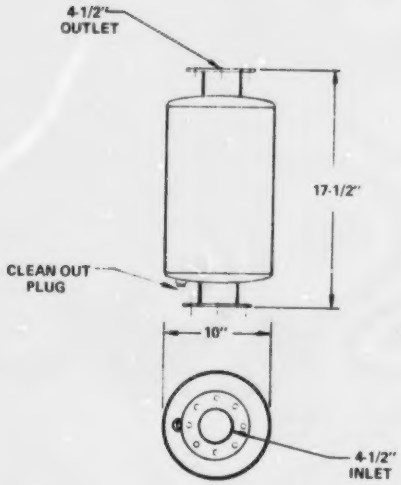
BRIGGS & STRATTON MODEL 392154 ON 392989 MUFFLER BODY



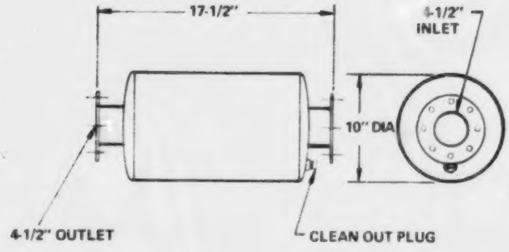
SEE DRAWING
391911 OR 391912
Page 18

396800

BURGESS-MANNING

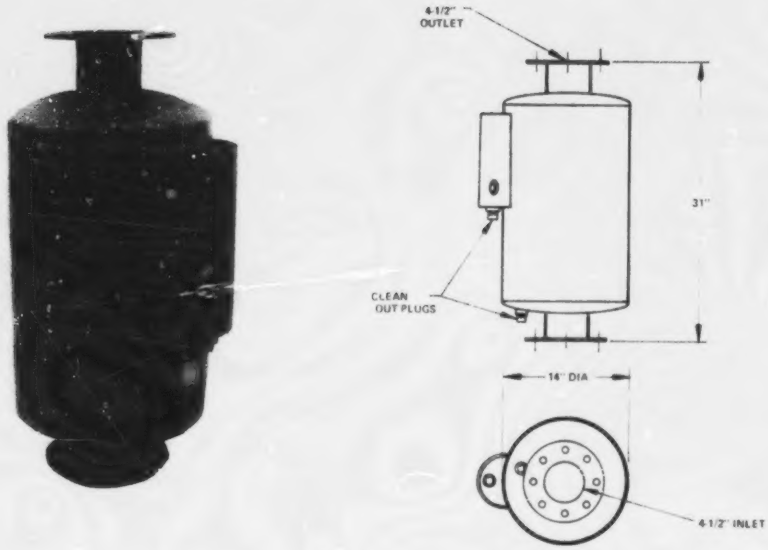

4-1/2"
OUTLET
17-1/2"
CLEAN OUT
PLUG
10"
4-1/2"
INLET

BURGESS-MANNING SAT-4

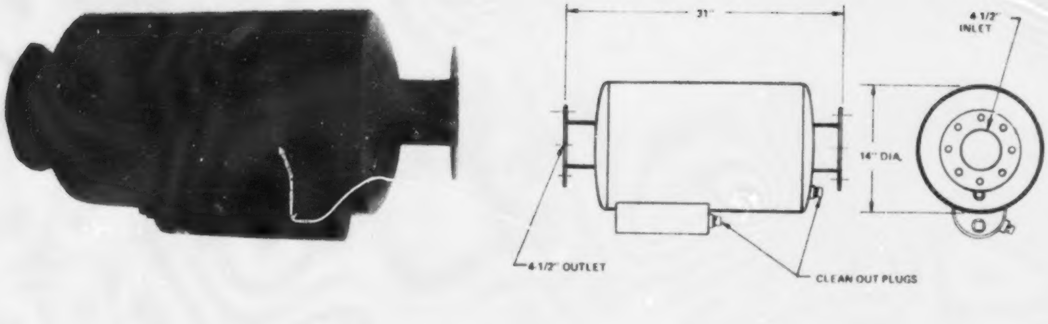

17-1/2"
4-1/2"
INLET
10" DIA
4-1/2" OUTLET
CLEAN OUT PLUG

BURGESS-MANNING SAT 4

BURGESS-MANNING (Continued)

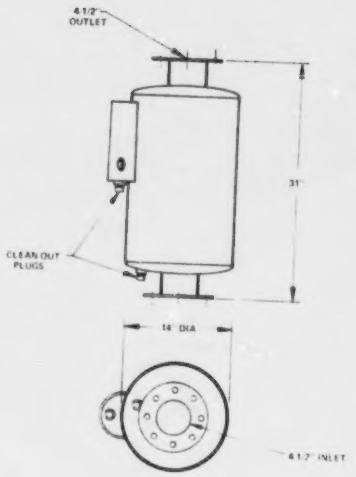

4-1/2" OUTLET
31"
CLEAN OUT PLUGS
14" DIA
4-1/2" INLET

SDMC-4

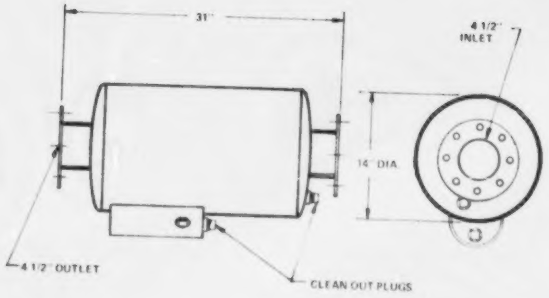

31"
4 1/2" INLET
14" DIA.
4-1/2" OUTLET
CLEAN OUT PLUGS

SDMC-4

BURGESS-MANNING (Continued)


4 1/2" OUTLET
31"
CLEAN OUT PLUGS
14" DIA
4 1/2" INLET

SDMC-LP-4

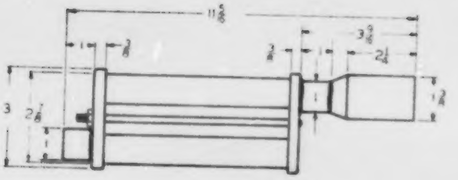

31"
4 1/2" INLET
14" DIA
4 1/2" OUTLET
CLEAN OUT PLUGS

SDMC-LP-4

CAL TUBE

CATERPILLAR

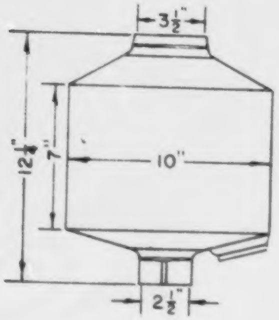
CAL TUBE


11 5/8
1
3/8
3/4
3 3/8
1
2 1/4
3
2 7/8
1
1 3/4
1

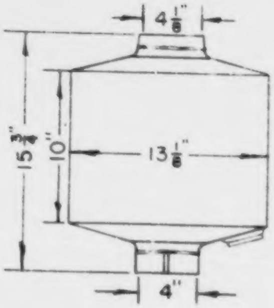
12583 **12583**

CATERPILLAR – CATERPILLAR TRACTOR COMPANY

3B5498


3 1/2"
12 1/4"
7"
10"
2 1/2"

3B5498

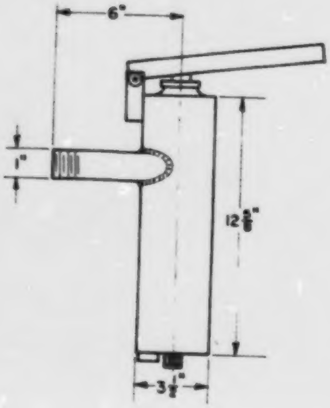

4 1/8"
15 3/4"
10"
13 1/8"
4"

3B7964

FOR CATERPILLAR 3B7942 – SEE DONALDSON FCM07-0068 (p. 31)
FOR CATERPILLAR 8N70741–SEE DONALDSON FMM12-0303 (p. 34)

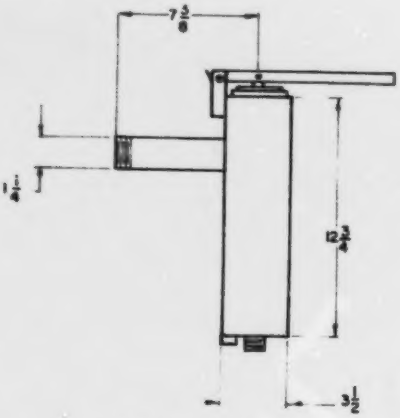
CEDCO COMPANY

NO. 1



NO. 1

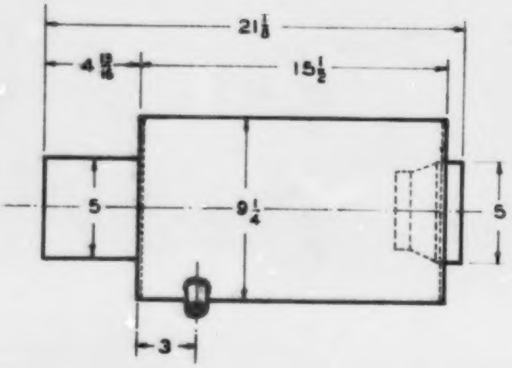
NO. 2


7 5/8
1 1/4
12 3/4
3 1/2

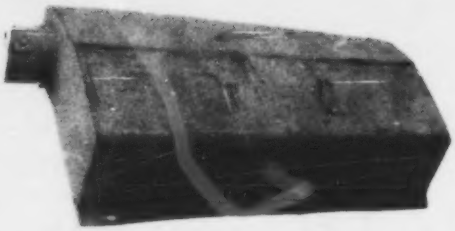
NO. 2

CLARK EQUIPMENT COMPANY *of* CANADA LTD.

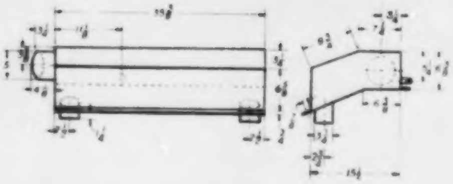
CAC 2000



CAC 2000



CAC 2000



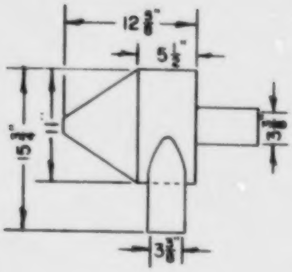
CAC 2000

CLARK EQUIPMENT COMPANY – MELROSE DIVISION

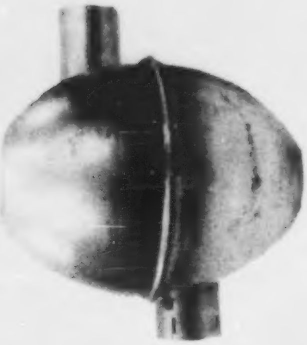
FOR CLARK 6547049 – SEE NELSON T-13473 (p. 149)
FOR CLARK 6551409 – SEE NELSON T-14415 (p. 164)
FOR CLARK 6552340 – SEE NELSON T-14907 (p. 167)

CONE – CONE ARRESTER COMPANY

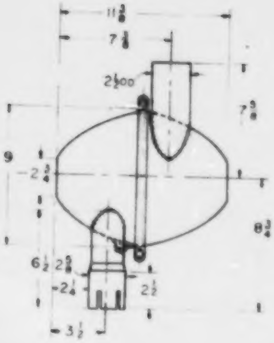
1100


12 3/8"
5 1/2"
15 3/4"
11"
3 3/8"
3 3/8"

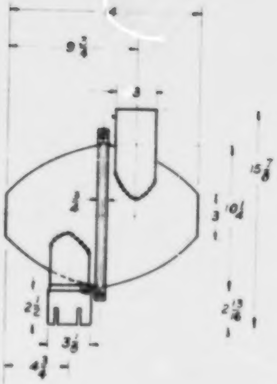
1100



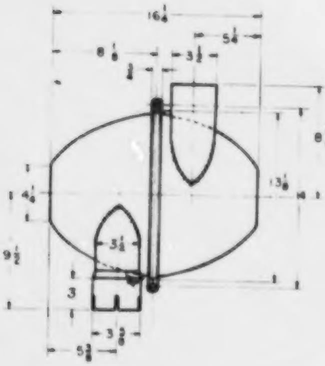
CONE 8-D


11 3/8
7 3/8
2 1/100
7 5/8
9
2 3/4
8 3/4
6 1/2
2 3/8
2 1/4
2 1/2
3 1/2

CONE 8-D


9 3/4
3
15 7/8
10 1/4
3
2 1/2
2 13/16
3 1/8
4 3/4

CONE 10-D


16 1/4
5 1/4
8 1/8
3 1/2
8 3/8
13 1/8
4 1/4
9 1/2
3 1/4
3
3 3/8
5 3/8

CONE 12-D

390 & 1500

DRAWINGS NOT AVAILABLE

Known Dimensions 390

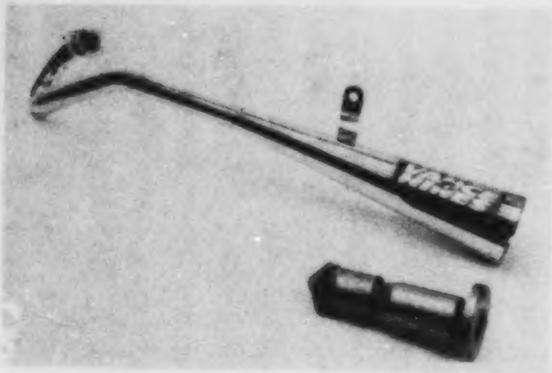
Inlet Pipe Diam. 3"
Outlet Pipe Diam. 3"
Main Body Diam. 9"

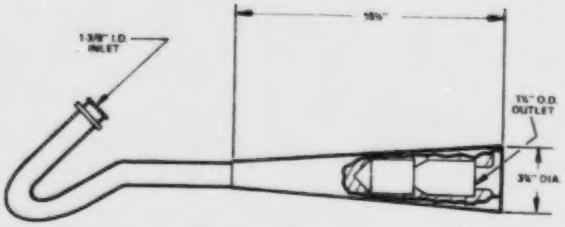
Known Dimensions 1500

Inlet Pipe Diam. 4"
Outlet Pipe Diam. 4"
Main Body Diam. 15"

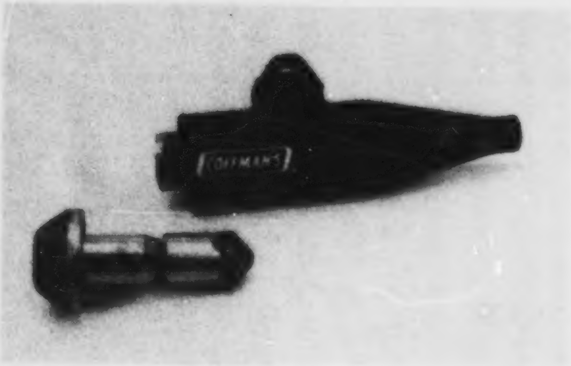
COOP

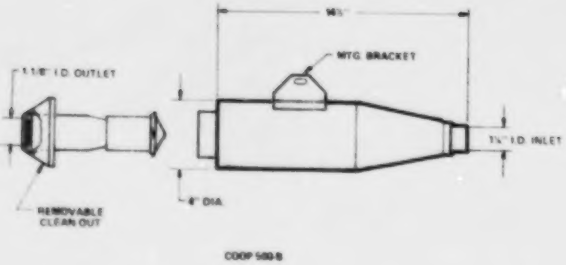
COOP ENGINEERING, INC.




1-3/8" I.D. INLET
1⅞" O.D. OUTLET
3⅞" DIA.

COOP 500A FOR LT 125

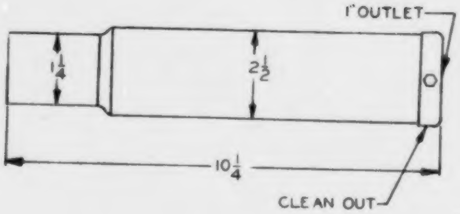



MTG. BRACKET
1 1/8" I.D. OUTLET
1¼" I.D. INLET
4" DIA.
REMOVABLE CLEAN OUT
COOP 500-B

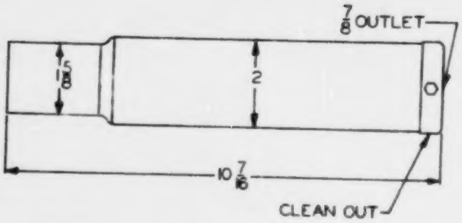
COOP 500B

COOP ENGINEERING, INC. (Continued)

COOP 500A


1" OUTLET
1 1/4
2 1/2
10 1/4
CLEAN OUT

COOP 400A

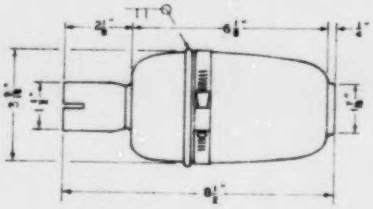

7/8 OUTLET
1 5/8
2
10 7/16
CLEAN OUT

COOP 500A

DAVIS

DAVIS – DAVIS SILENCER CO.

D-L 260

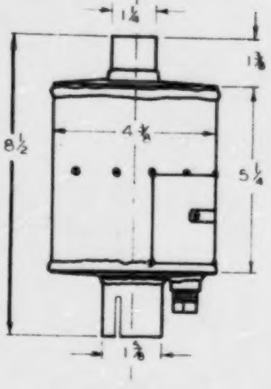

2 1/8"
6 1/8"
1/4"
8 1/2"

D-L 260

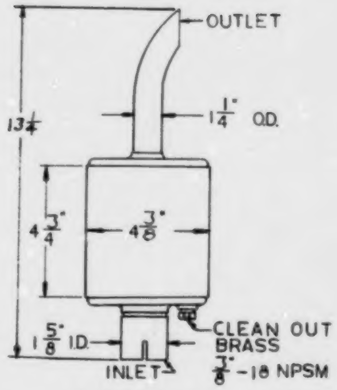
DONALDSON – DONALDSON COMPANY

**F
C
M***

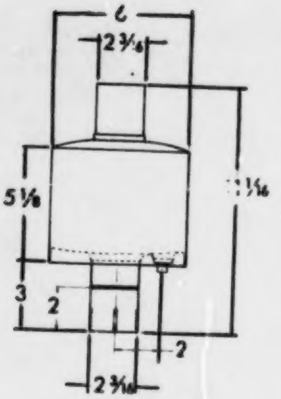
FCMO


1¼
1⅜
8½
4¼
5¼
1⅝

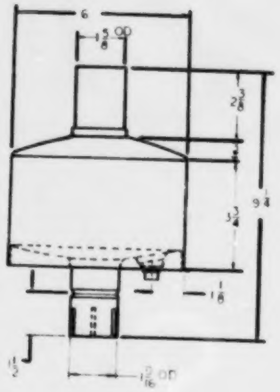
FCM04-5123


OUTLET
13¼
1¼" O.D.
4¾"
4⅜"
CLEAN OUT
BRASS
⅜"-18 NPSM
1⅝" I.D.
INLET

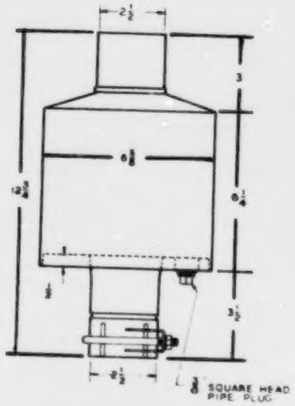
FCM04-5214


6
2³⁄₁₆
5⅛
11⅛₁₆
3
2
2
2³⁄₁₆

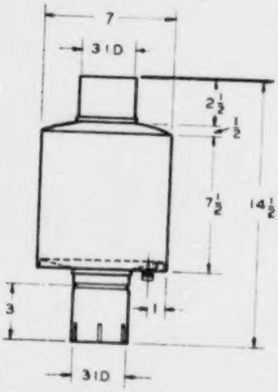
FCM06-0037


6
1⅝ OD
2⅜
9¼
3¾
1⅛
1½
1¹⁵⁄₁₆ OD

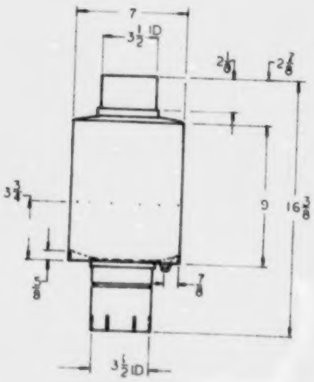
FCM06-0038


2½
3
6⅛
12¾
6¼
3½
2½
⅜ SQUARE HEAD PIPE PLUG

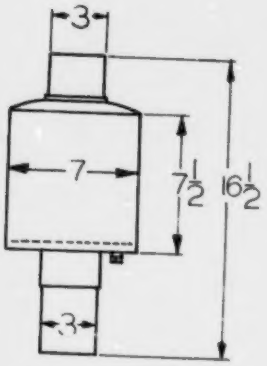
FCM06-5030


7
3 I.D
2½
½
7½
14½
3
1
3 I.D

FCM07-0068


7
3½ ID
2⅞
2⅞
3¾
9
16⅜
⅝
⅞
3½ ID

FCM07-0069

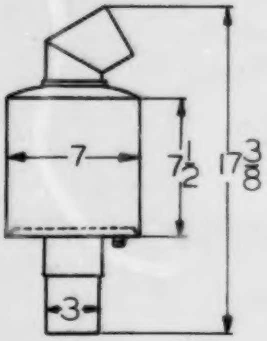


FCM07-0118

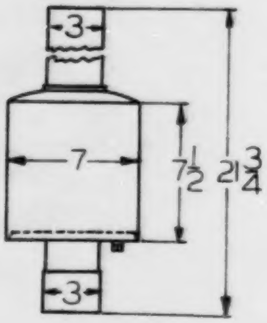
***Early models may carry a -1 at the end of this number.**

DONALDSON (Continued)

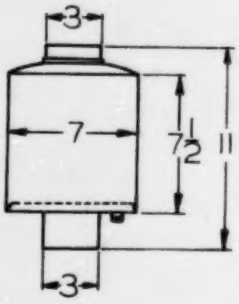
F
C
M*


3
7
$7\frac{1}{2}$
$17\frac{3}{8}$
3

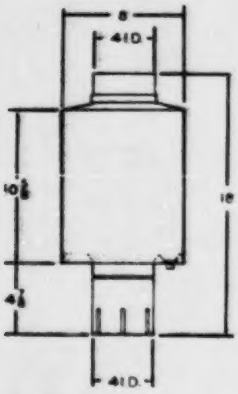
FCM07-0122


3
7
$7\frac{1}{2}$
$21\frac{3}{4}$
3

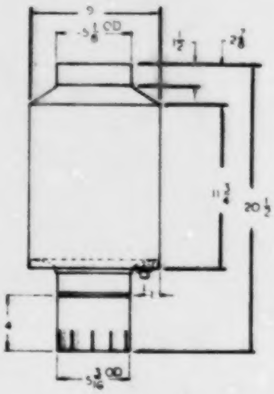
FCM07-0126


3
7
$7\frac{1}{2}$
11
3

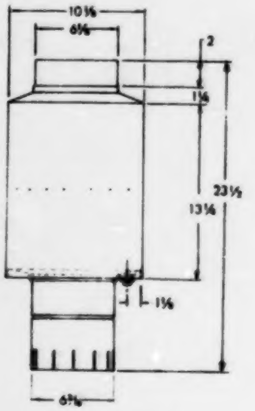
FCM07-0139


8
4 I.D.
$10\frac{3}{8}$
18
$4\frac{7}{8}$
4 I.D.

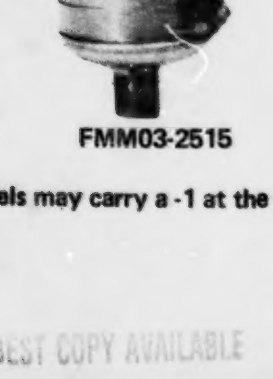
FCM08-0024


9
$5\frac{1}{8}$ OD
$1\frac{1}{2}$
$2\frac{7}{8}$
$11\frac{3}{4}$
$20\frac{1}{2}$
1
4
3 OD
$5\frac{5}{16}$

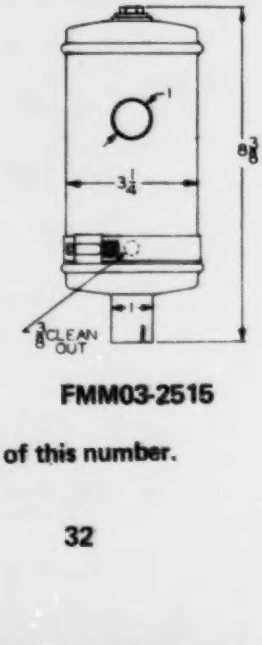
FCM09-0091


10⅛
6⅛
2
1⅛
23½
13⅛
1⅛
6⅝

FCM10-0016



FMM03-2515


1
$3\frac{1}{4}$
$8\frac{3}{8}$
1
$\frac{3}{8}$ CLEAN OUT

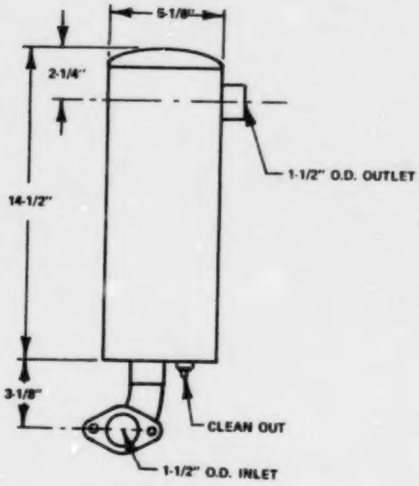
FMM03-2515

***Early models may carry a -1 at the end of this number.**

DONALDSON (Continued)

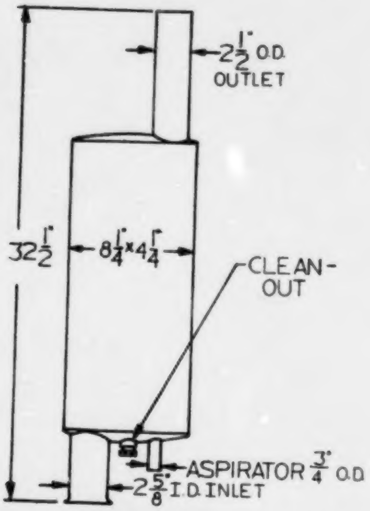
F
C
M*

FMM05-0073


5-1/8"
2-1/4"
14-1/2"
3-1/8"
1-1/2" O.D. OUTLET
CLEAN OUT
1-1/2" O.D. INLET

FMM05-0073

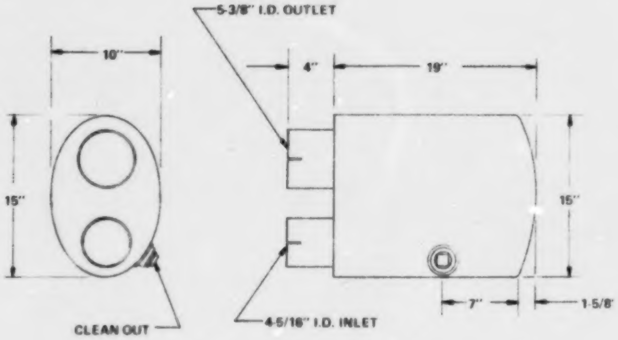
FMM06-0175


2 1/2" O.D. OUTLET
32 1/2"
8 1/4" x 4 1/4"
CLEAN-OUT
ASPIRATOR 3/4" O.D.
2 5/8" I.D. INLET

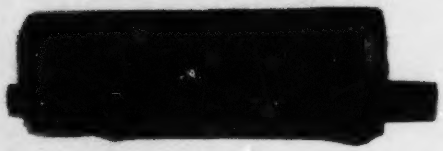
FMM06-0175

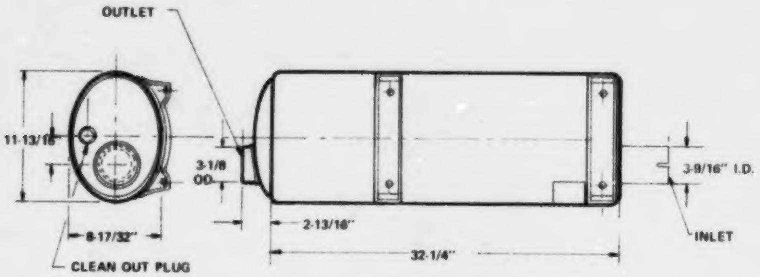
*Early models may carry a -1 at the end of this number.

DONALDSON (Continued)

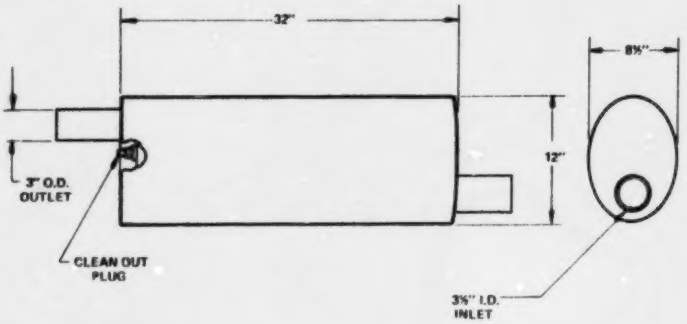

5-3/8" I.D. OUTLET
10"
4"
19"
15"
15"
CLEAN OUT
4-5/16" I.D. INLET
7"
1-5/8"

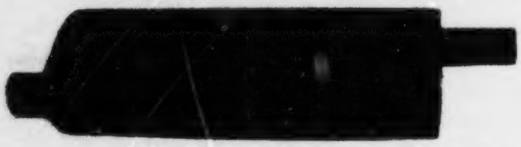
FMM12-0303 (CAT. 8N7074-1)



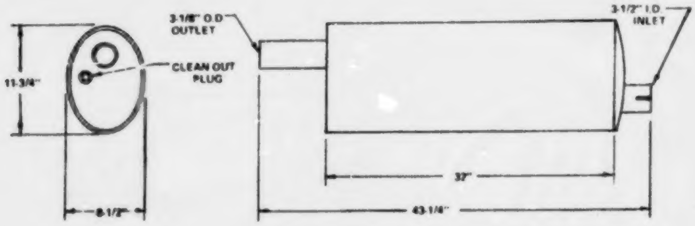

OUTLET
11-13/16"
3-1/8
OD
3-9/16" I.D.
2-13/16"
8-17/32"
32-1/4"
INLET
CLEAN OUT PLUG

FMM09-0446


32"
8½"
12"
3" O.D.
OUTLET
CLEAN OUT
PLUG
3½" I.D.
INLET

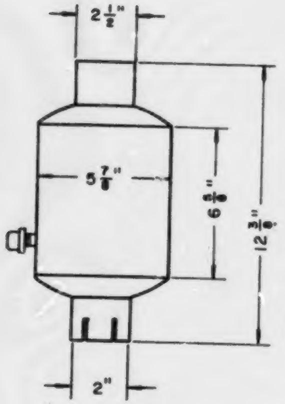


FMM09-0510

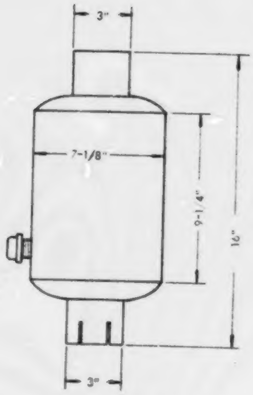

3-1/8" O.D
OUTLET
3-1/2" I.D.
INLET
CLEAN OUT
PLUG
11-3/4"
37"
8-1/2"
43-1/4"

FARR – FARR COMPANY

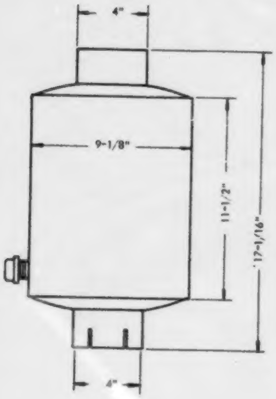
Model 20B


2 1/2"
5 7/8"
6 5/8"
12 3/8"
2"

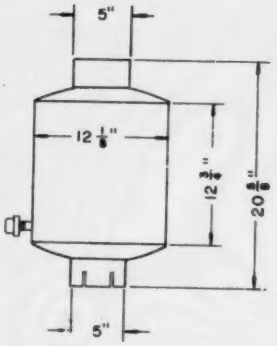
Model 20B


3"
7-1/8"
9-1/4"
16"
3"

Model 30B

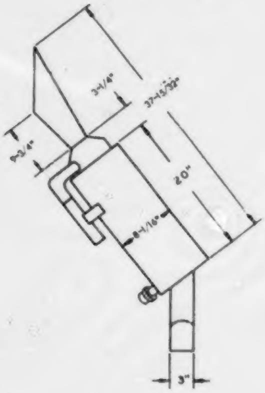

4"
9-1/8"
11-1/2"
17-1/16"
4"

40B


5"
12 1/8"
12 3/8"
20 5/8"
5"

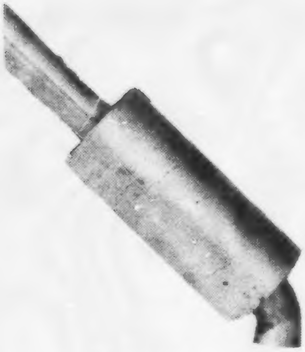
50B

B16647-1

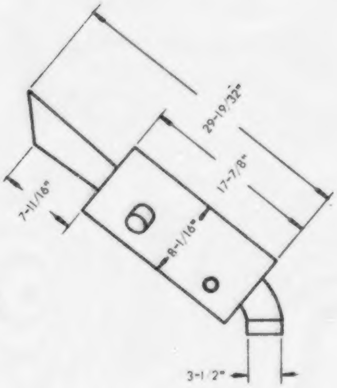

3-1/4"
37-15/32"
9-3/4"
20"
8-1/16"
3"

B16647-1

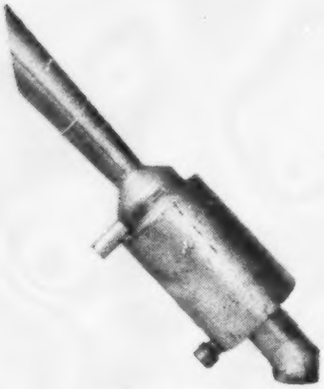
FARR (Continued)



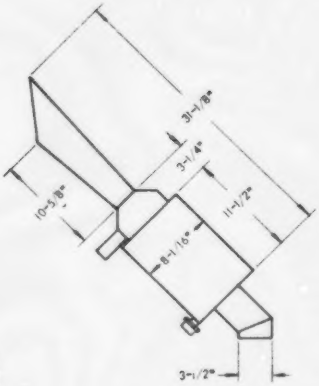
B17345


29-19/32"
17-7/8"
7-11/16"
8-1/16"
3-1/2"

B17345



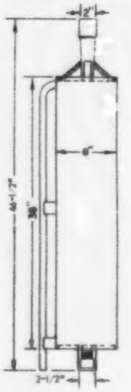
B18854


31-1/8"
3-1/4"
10-5/8"
11-1/2"
8-1/16"
3-1/2"

B18854

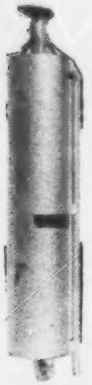
FOR C15626 SEE C16085

C16085

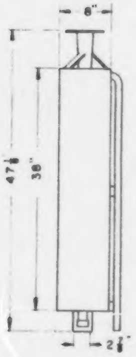

2"
6"
46-1/2"
38"
2-1/2"

C16085

FARR (Continued)

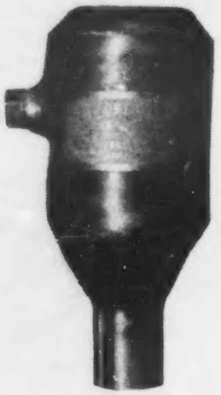


C22001

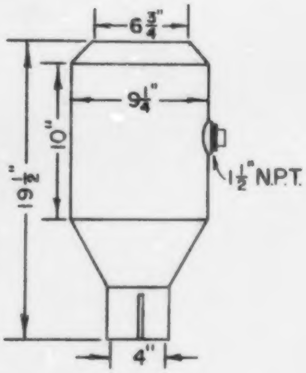

8"
47 1/8
38"
2 7/8"

C22001

FORESTER – WESTERN FIRE EQUIPMENT COMPANY

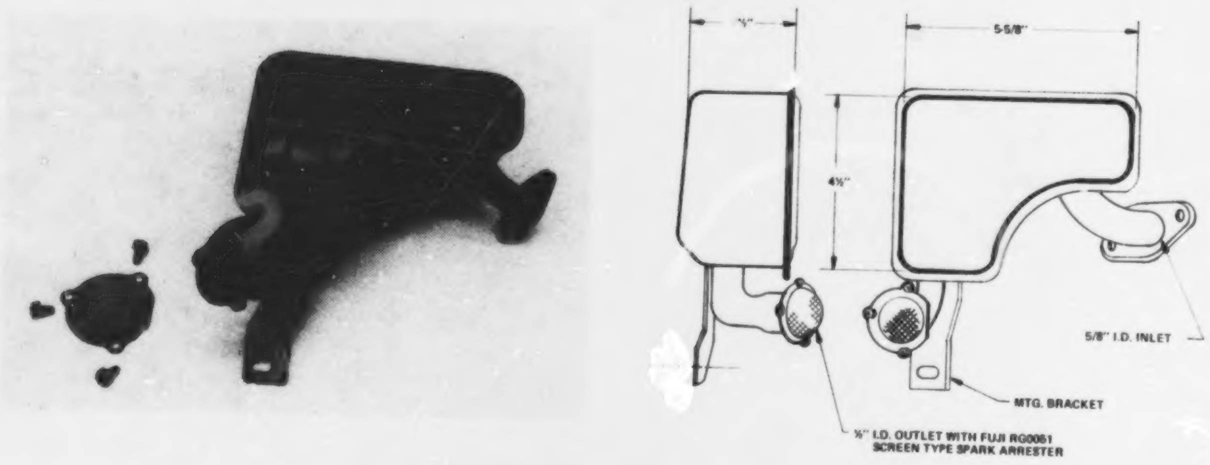


12X330

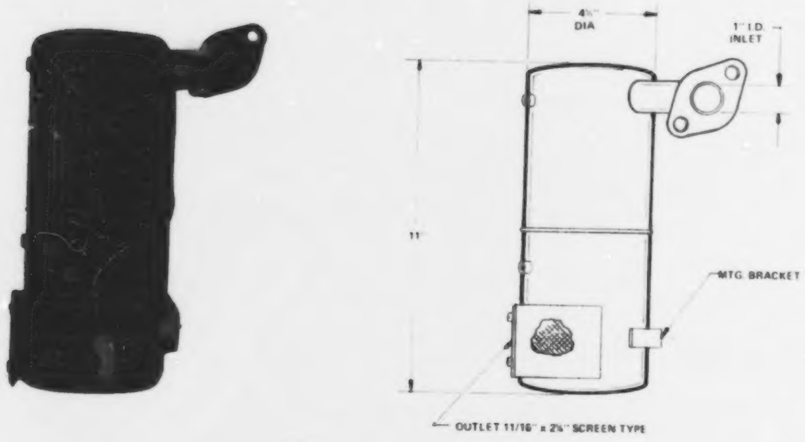

6 3/4"
9 1/4"
10"
19 1/2"
1 1/2" N.P.T.
4"

12X330

FUJI

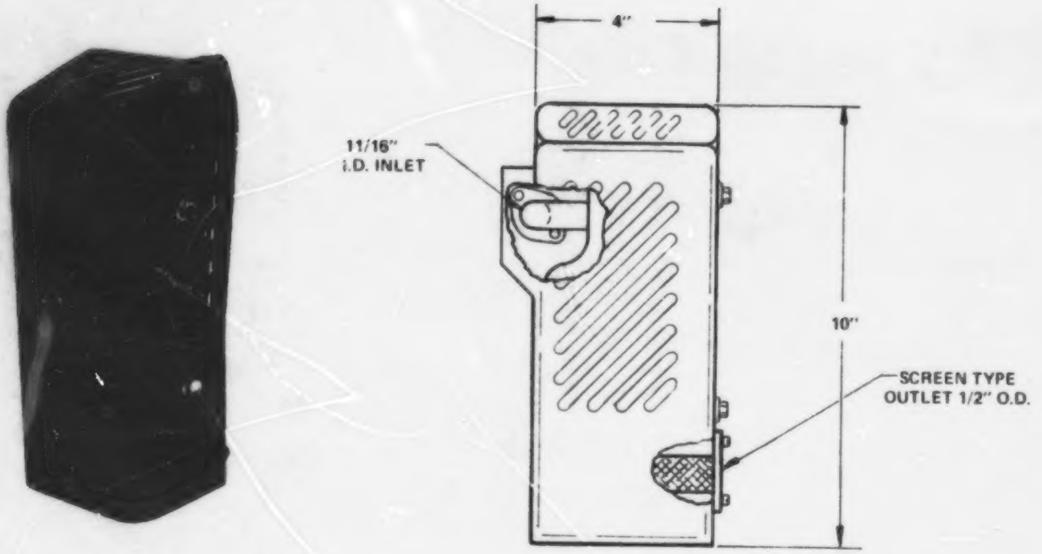

½''
5-5/8''
4½''
5/8'' I.D. INLET
MTG. BRACKET
½'' I.D. OUTLET WITH FUJI RG0061
SCREEN TYPE SPARK ARRESTER

FUJI RG0051


4¾''
DIA
1'' I.D.
INLET
11''
MTG. BRACKET
OUTLET 11/16'' x 2¾'' SCREEN TYPE

EY 35/EY 40W

FUJI (Continued)

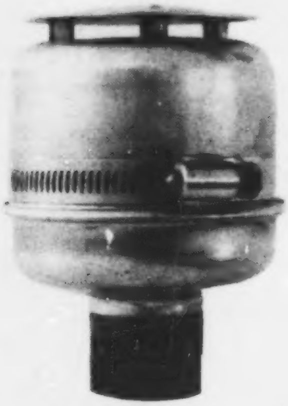

4"
11/16" I.D. INLET
10"
SCREEN TYPE OUTLET 1/2" O.D.

FUJI RG0 120

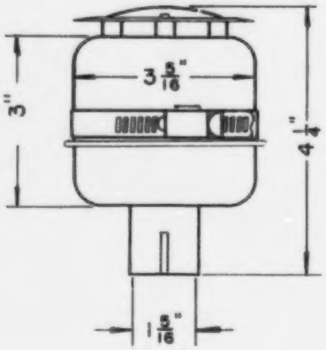
GENERAC – GENERAC CORPORATION

FOR	GENERAC	30699 –	SEE	NELSON	T-11068C
"	"	31145 –	"	"	T-11159
"	"	33232 –	"	"	T-11606
"	"	37924 –	"	"	T-13304 (Approved as T-9458)
"	"	37936 –	"	"	T-12760B
"	"	38560 –	"	"	T-13265
"	"	39081 –	"	"	T-13572
"	"	39247 –	"	"	T-9458
"	"	43951 –	"	"	T-14315
"	"	43952 –	"	"	T-14316
"	"	43953 –	"	"	T-14321

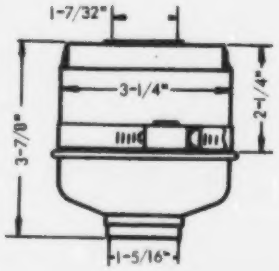
GILL – ERICKSON PRODUCTS COMPANY



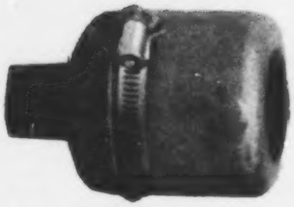
3C


3 5/16"
3"
4 1/4"
1 5/16"

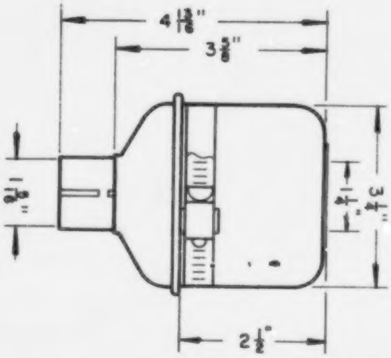
3C


1-7/32"
3-1/4"
3-7/8"
2-1/4"
1-5/16"

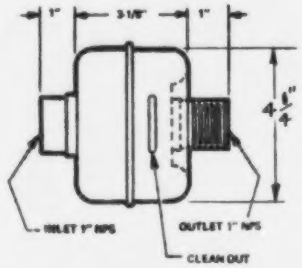
3C–USFS Mod.



3CIP


4 13/16"
3 5/8"
2 1/2"

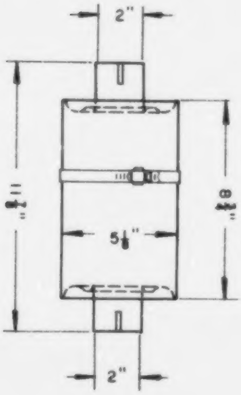
3CIP (Horiz)


1"
3-1/8"
1"
4 1/4"
INLET 1" NPS
OUTLET 1" NPS
CLEAN OUT

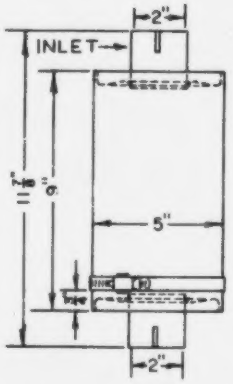
NOTE: Metal band may be used to obscure clean out slot under normal operating condition (see photo).

4CIP

5C

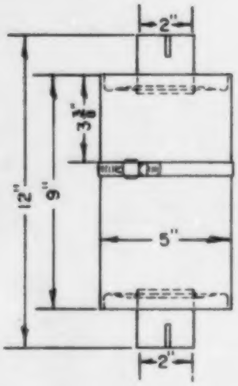


5C20A

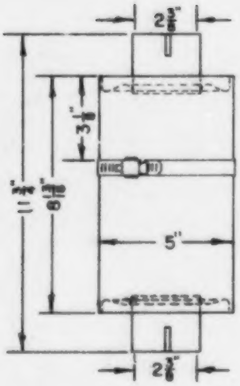


5C20A Inverted

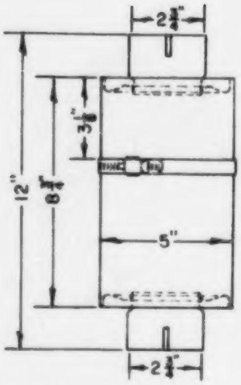
GILL (Continued)



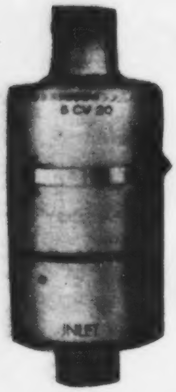
5C20B


2 3/8"
3 1/8"
11 3/4"
8 13/16"
5"
2 3/8"

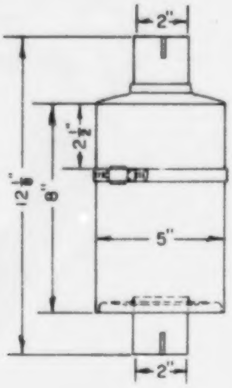
5C23B


2 3/4"
3 1/8"
12"
8 3/4"
5"
2 3/4"

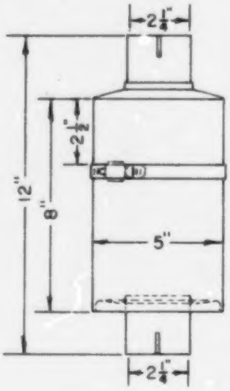
5C26B


5 CV 20
INLET

5CV

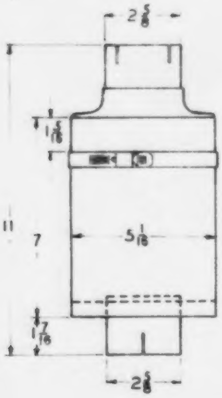

2"
2 1/2"
12 1/8"
8"
5"
2"

5CV20


2 1/4"
2 1/2"
12"
8"
5"
2 1/4"

5CV23

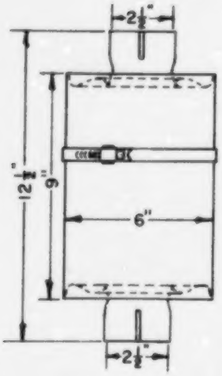
5CV24


2 5/8
1 5/16
11
7
5 1/16
1 7/16
2 5/8

5CV24

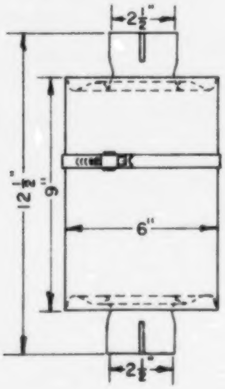
GILL (Continued)

6C24 (9 in.)

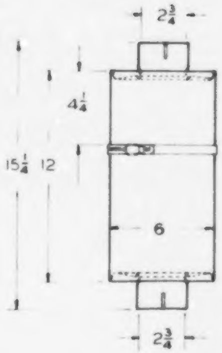


6C24 (9 in.)

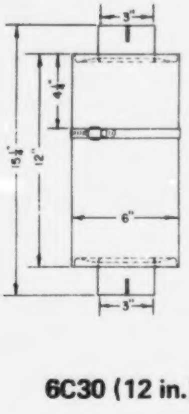
6C (12 in.)



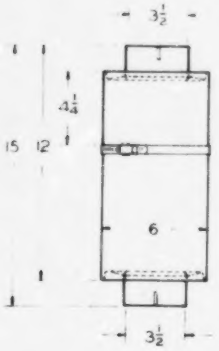
6C24 (12 in.)


2¾
4¼
15¼
12
6
2¾

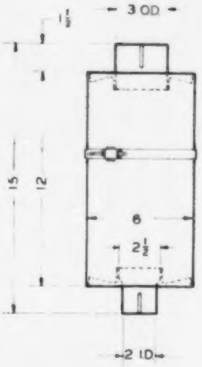
6C26 (12 in.)


3"
4¼"
15¾"
12"
6"
3"

6C30 (12 in.)

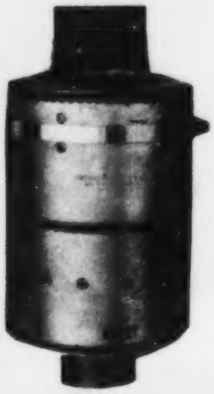

3½
4¼
15
12
6
3½

6C34 (12 in.)

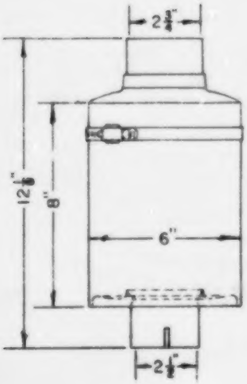

1½
3 OD
15
12
8
2½
2 ID

6C2030 (12 in.)

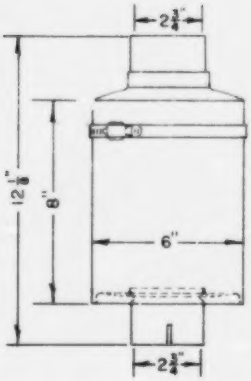
GILL (Continued)



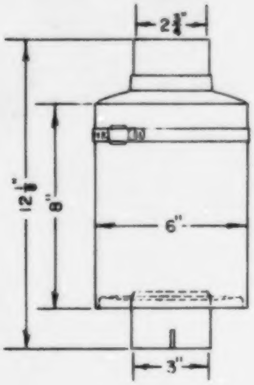
6CV


2 3/4"
12 1/8"
8"
6"
2 1/2"

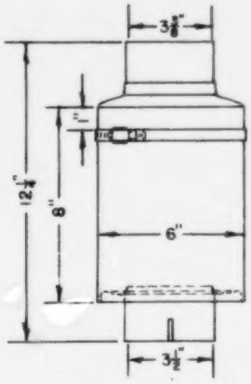
6CV24


2 3/4"
12 1/8"
8"
6"
2 3/4"

6CV26

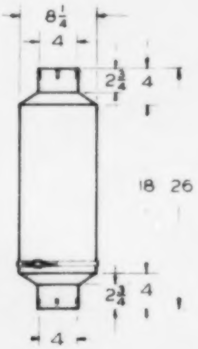

2 3/4"
12 1/8"
8"
6"
3"

6CV30


3 5/8"
12 1/4"
1"
8"
6"
3 1/2"

6CV34

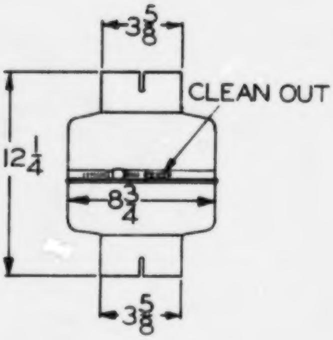
8C40


8 1/4
4
2 3/4
4
18
26
2 3/4
4
4

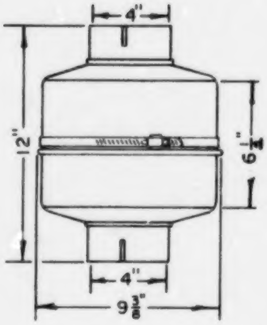
8C40

GILL (Continued)

8CV

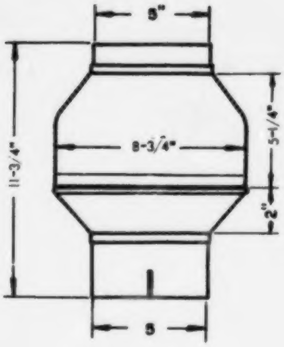

3 5/8
CLEAN OUT
12 1/4
8 3/4
3 5/8

8CV34

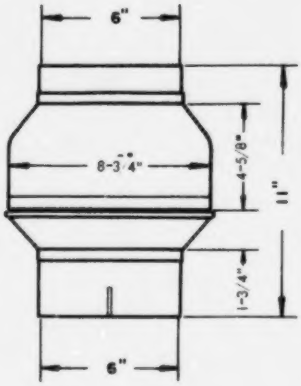

4"
12"
6 1/4"
4"
9 3/8"

8CV40

8CV50

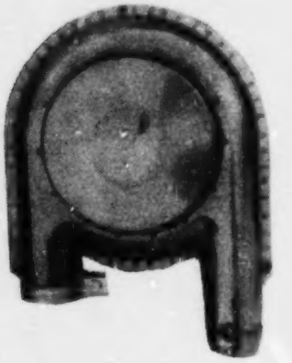

5"
8-3/4"
5-1/4"
11-3/4"
2"
5

8CV50

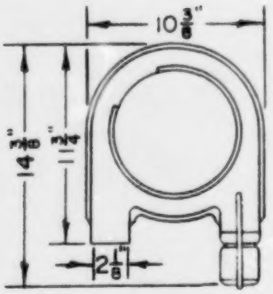

6"
8-3/4"
4-5/8"
11"
1-3/4"
6"

8CV60

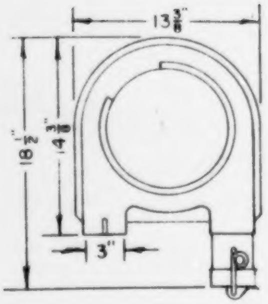
GILL (Continued)



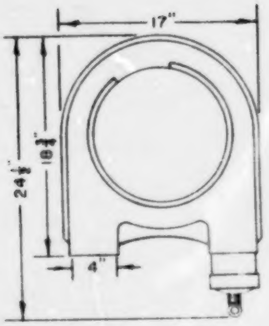
GSF


10 3/8"
14 3/8"
11 3/4"
2 1/8"

GSF-200

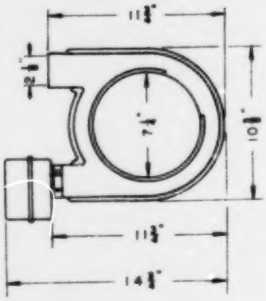

13 3/8"
18 1/2"
14 3/8"
3"

GSF-300

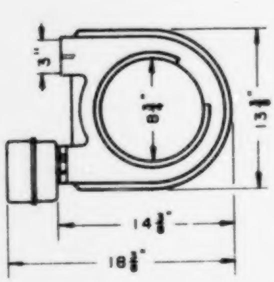

17"
24 1/2"
18 3/4"
4"

GSF-400

GSH


11 3/4"
2 1/4"
7 1/4"
10 1/8"
11 3/8"
14 3/4"

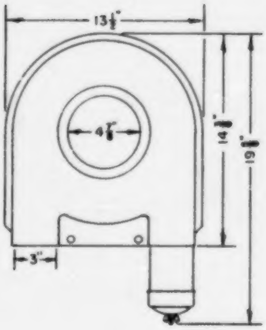
GSH-200


3"
8 1/4"
13 1/8"
14 3/8"
18 3/8"

GSH-300

GILL (Continued)

GSO

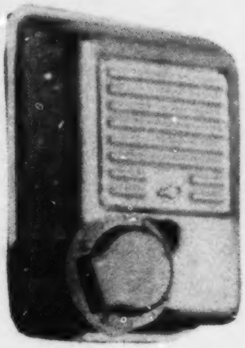

13 1/2"
4 7/8"
14 5/8"
19 5/8"
3"

GSO-300

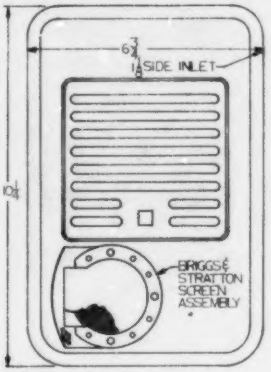
GILSON

GORMAN-RUPP

GILSON

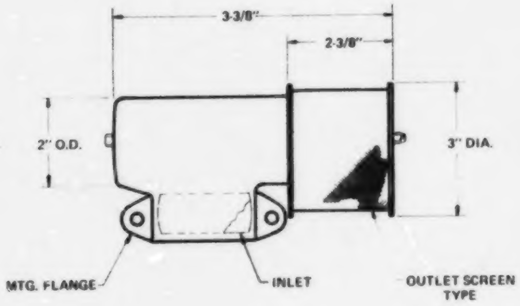


36742


6 3/4
1 1/8 SIDE INLET
10 1/4
BRIGGS & STRATTON SCREEN ASSEMBLY

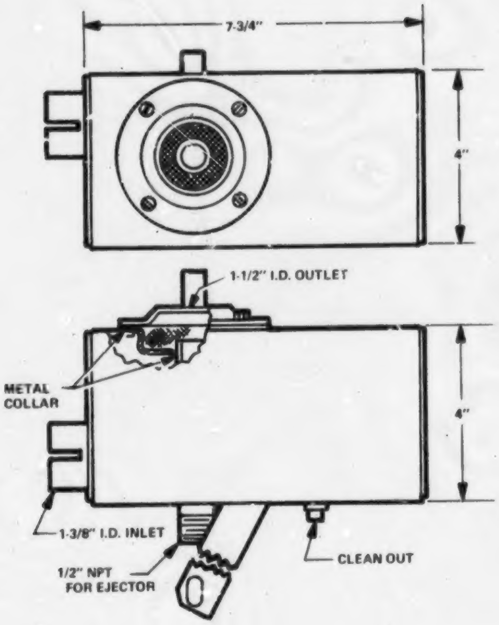
36742
Screen Assembly 392154

GORMAN RUPP


3-3/8"
2-3/8"
2" O.D.
3" DIA.
MTG. FLANGE
INLET
OUTLET SCREEN TYPE

462611-018

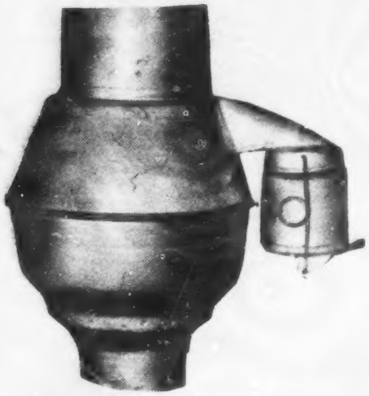
HALE FIRE PUMP COMPANY


7-3/4"
4"
1-1/2" I.D. OUTLET
METAL COLLAR
4"
1-3/8" I.D. INLET
1/2" NPT FOR EJECTOR
CLEAN OUT

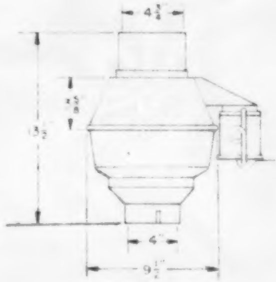
108-0230-02
108-0230-06*

*Modified 108-0230-02 for use on 1-cylinder of an engine. An elbow has been added to the inlet to accomodate mounting.

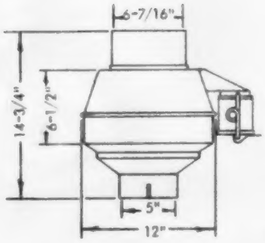
HAPCO — HAPCO MANUFACTURING COMPANY



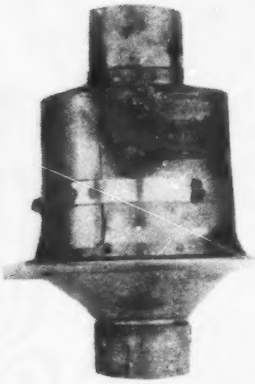
6A or 6H


4 3/4"
15 1/2"
4"
9 1/2"

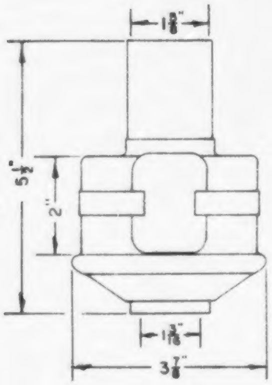
6A or 6H


6-7/16"
14-3/4"
6-1/2"
5"
12"

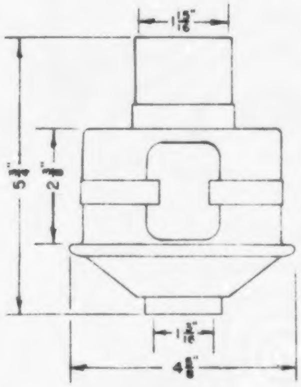
7A or 7H



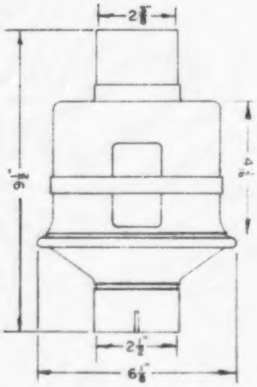
1AA


1 5/8"
5 1/2"
2"
1 3/16"
3 7/8"

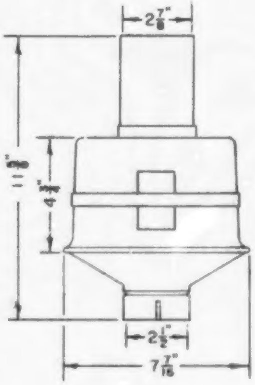
1AA


1 15/16"
5 3/4"
2 1/8"
1 3/16"
4 5/8"

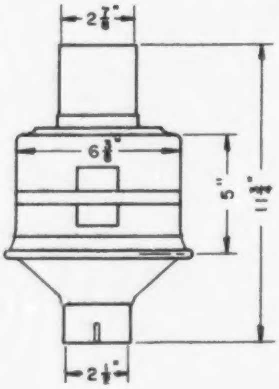
2AA


2 5/8"
9 1/2"
4 1/8"
2 1/2"
6 1/8"

3AA

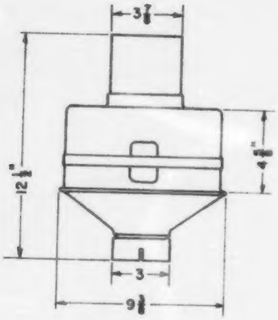

2 7/8"
11 3/8"
4 3/4"
2 1/2"
7 7/16"

4AA

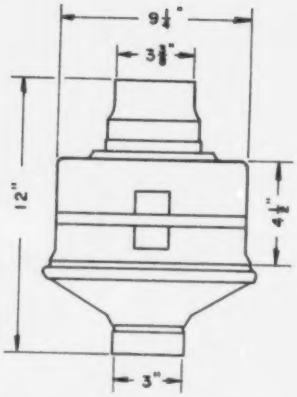

2 7/8"
6 3/8"
5"
11 3/4"
2 1/2"

4AA (step design)

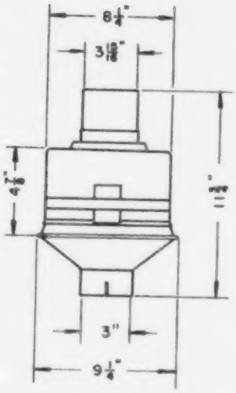
HAPCO (Continued)


3 7/8
12 1/8"
4 5/8"
3
9 3/8

5AA

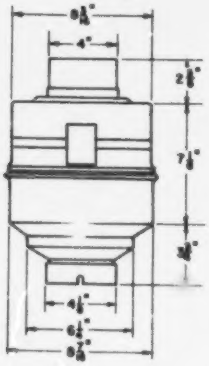

9 1/4"
3 3/8"
12"
4 1/2"
3"

5AA (step design)


8 1/4"
3 13/16"
4 7/8"
11 3/4"
3"
9 1/4"

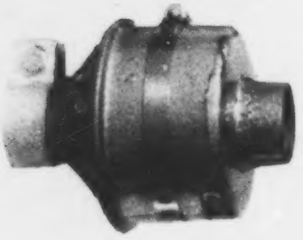
5AA (altered)

6AA (4" outlet)

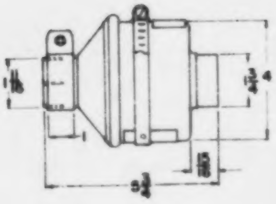

8 3/4"
4"
2 5/8"
7 1/8"
3 1/4"
4 1/8"
6 1/4"
8 7/8"

6AA (4" outlet)

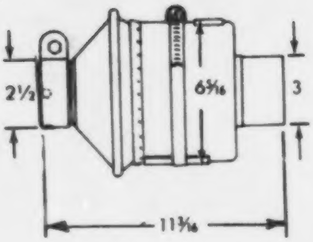
HAPCO (Continued)



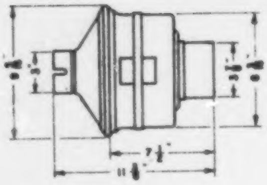
2AAH



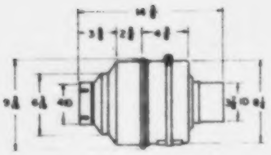
2AAH


2½
6⁵⁄₁₆
3
11³⁄₁₆

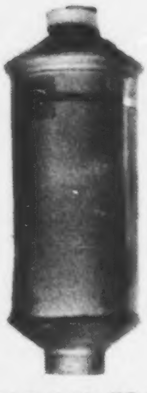
4AAH



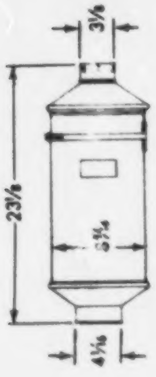
5AAH



6AAH



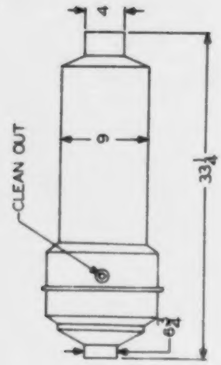
5AAH S.A.M. 59-3



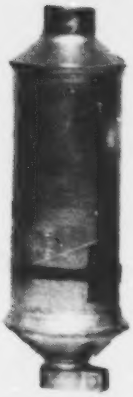
5AAH S.A.M. 59-3

HAPCO (Continued)

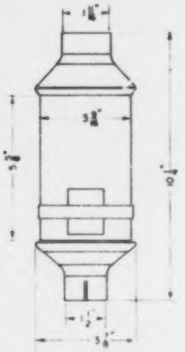
S.A.M. 712


4
9
CLEAN OUT
33¼
6½

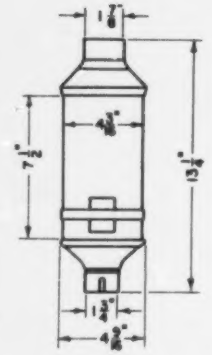
S.A.M. 712



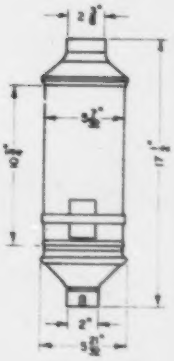
1AA S.A.M. 13-18


1⅝"
3⅜"
5⅞"
10¼"
1½"
3⅞"

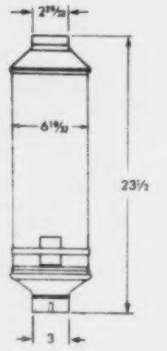
1AA S.A.M. 13-18


1⅞"
4 3/16"
7½"
13¼"
1¾"
4 9/16"

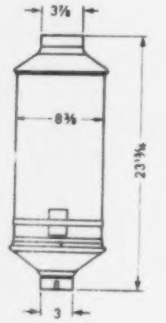
2AA S.A.M. 24-112


2⅞"
5 7/32"
10⅝"
17⅛"
2"
5 21/32"

3AA S.A.M. 36-2

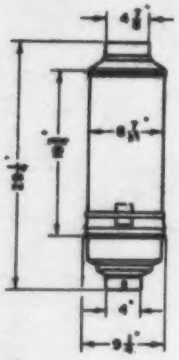

2 29/32
6 19/32
23½
3

4AA S.A.M. 48-3


3⅞
8⅜
23 13/16
3

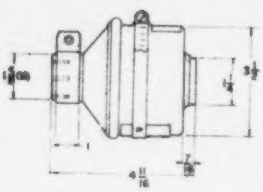
5AA S.A.M. 59-3

HAPCO (Continued)

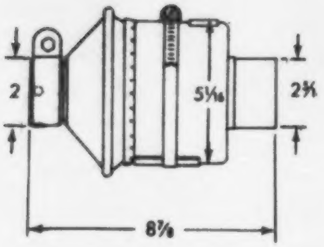


6AA S.A.M. 69-4

1AAXH

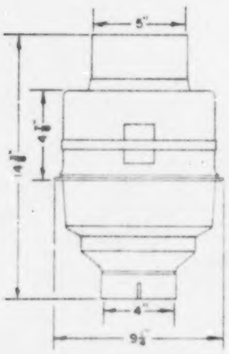


1AAXH

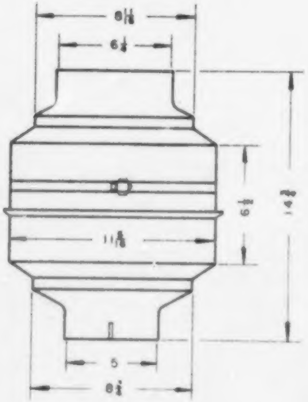


3AAXH

6AB

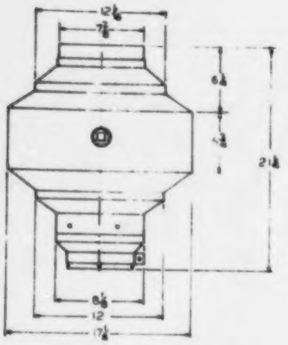


6AB

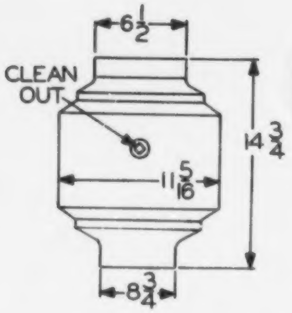


7AB

HAPCO (Continued)

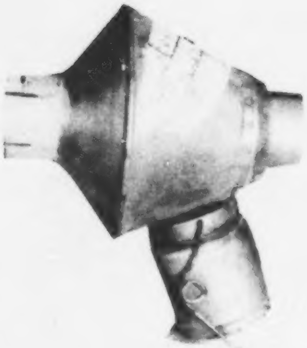


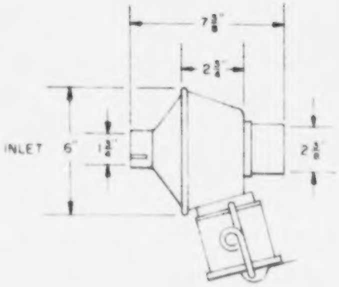
8AB


$6\frac{1}{2}$
CLEAN OUT
$14\frac{3}{4}$
$11\frac{5}{16}$
$8\frac{3}{4}$

7AC

7AC



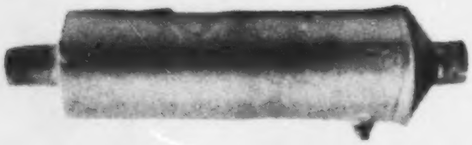

$7\frac{3}{8}$"
$2\frac{3}{4}$"
INLET
6"
$1\frac{3}{4}$"
$2\frac{3}{8}$"

H (horizontal)

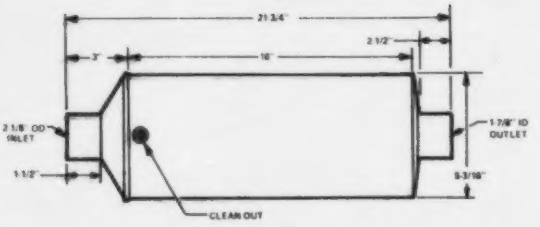
3H (horizontal)

HAPCO

HAPCO (Continued)

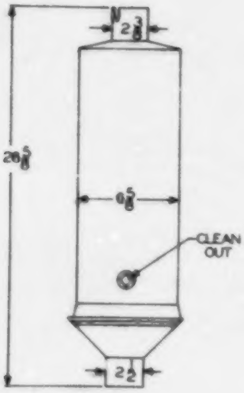


SASR 36-H, 3AAXH

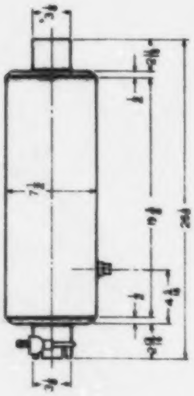

21 3/4"
2 1/2"
3"
16"
2 1/8" OD
INLET
1 1/2"
1 7/8" ID
OUTLET
9-3/16"
CLEAN OUT

SASR 36-H, 3AAXH

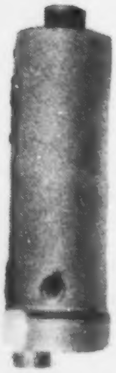
SASR 48


2 3/8
26 5/8
6 5/8
CLEAN
OUT
2 1/2

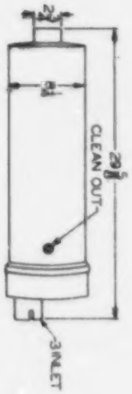
SASR 48



SASR 48-H



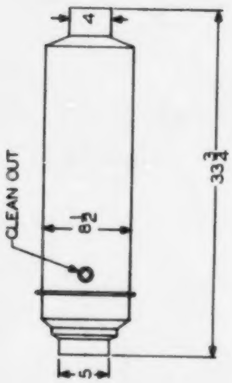
SASR 59


29 5/8
CLEAN OUT
3 INLET

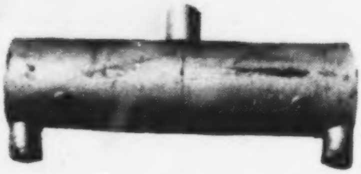
SASR 59

HAPCO (Continued)

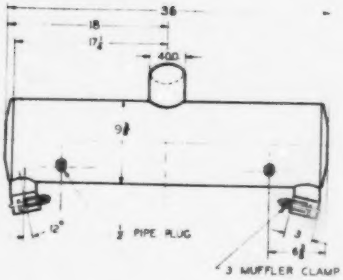
SASR 69-H


4
CLEAN OUT
8½
33¾
5

SASR 69-H

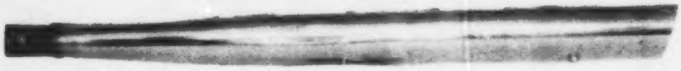


SASR 559

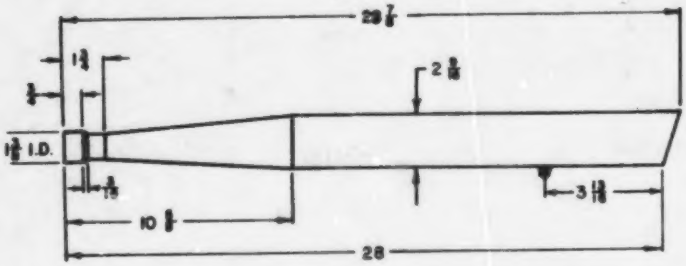

36
18
17¼
400
9⅝
12°
½ PIPE PLUG
3
6¾
3 MUFFLER CLAMP

SASR 559

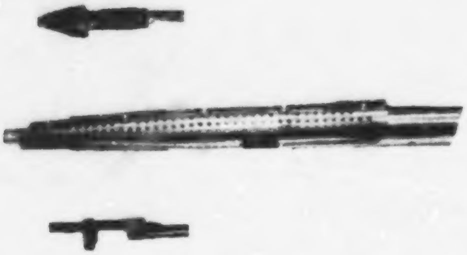
HARLEY-DAVIDSON – HARLEY-DAVIDSON MOTORCYCLES



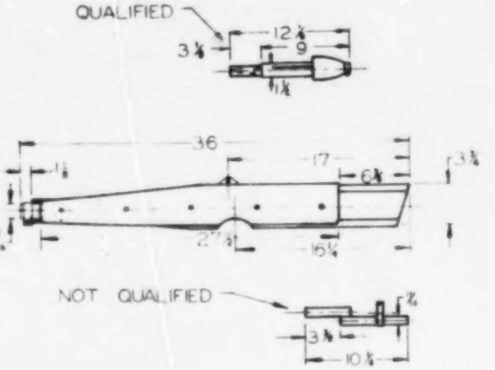
H.D.-1


29 7/8
1 3/8
3/8
2 3/8
1 5/8 I.D.
3/16
10 5/8
3 13/16
28

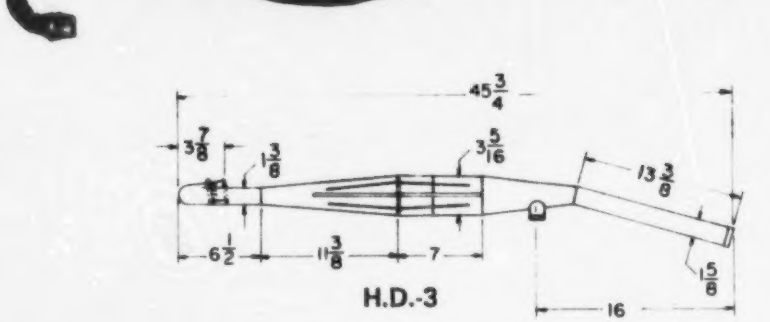
H.D.-1



H.D.-2


QUALIFIED
12 ¼
3 ⅛
9
1 ¼
36
1 ⅛
17
6 ⅞
3 ¾
1 7/16
27 ⅞
16 ¼
NOT QUALIFIED
⅞
3 ⅞
10 ⅞

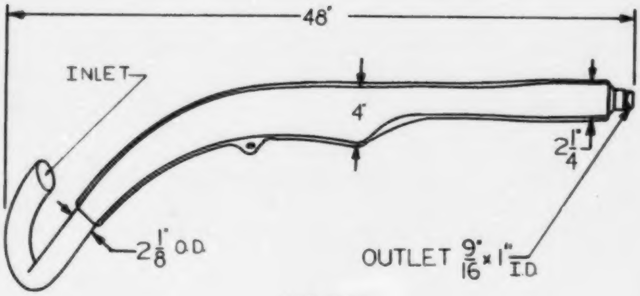
H.D.-2


45 3/4
3 7/8
1 3/8
3 5/16
13 3/8
6 1/2
11 3/8
7
1 5/8
16

H.D.-3

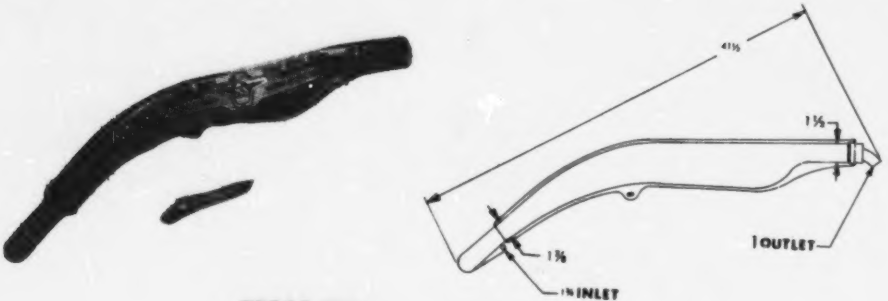
HARLEY-DAVIDSON—KRIZMAN

KS-400

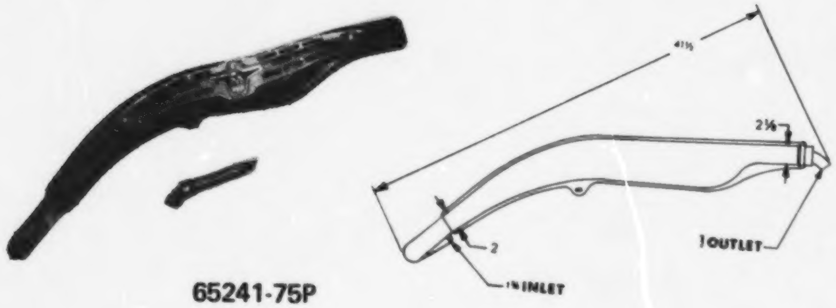

48"
INLET
4"
$2\frac{1}{4}$"
$2\frac{1}{8}$" O.D.
OUTLET $\frac{9}{16}$" x 1" I.D.

KS-400

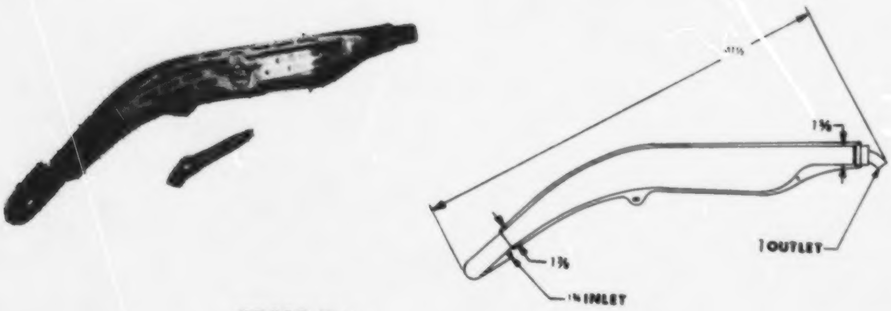
HARLEY-DAVIDSON—HARLEY-DAVIDSON MOTORCYCLES


41½
1½
1⅝
1⅝ INLET
1 OUTLET

65234-75P

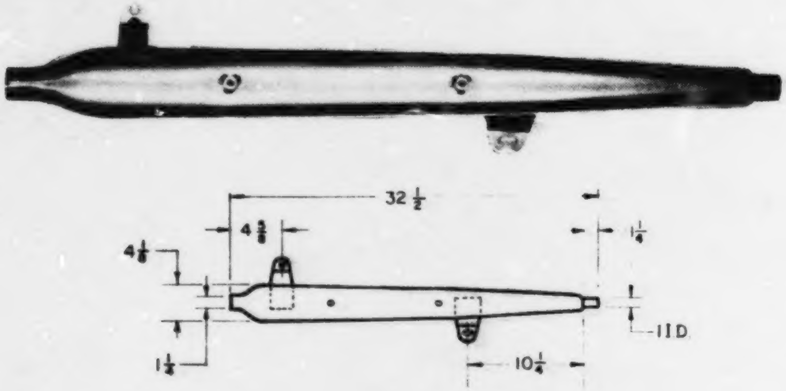

41½
2⅛
2
1⅝ INLET
1 OUTLET

65241-75P

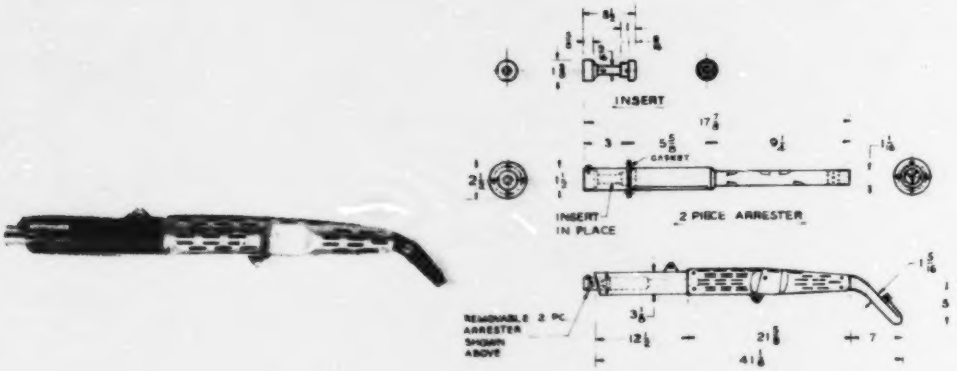

41½
1⅝
1⅝
1⅝ INLET
1 OUTLET

65463-75P

HODAKA – PACIFIC BASIN TRADING COMPANY


32 1/2
4 3/8
4 1/8
1 1/4
1 1/4
1 I.D.
10 1/4

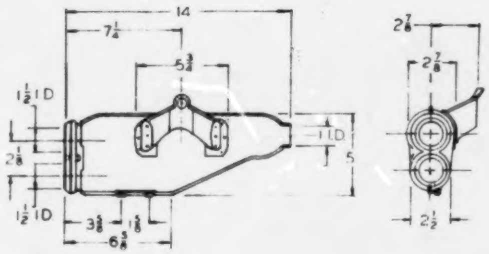
ACE 90D


INSERT
17 7/8
3
5 5/8
9 1/4
1 1/8
GASKET
2 1/2
1 1/2
INSERT IN PLACE
2 PIECE ARRESTER
1 5/16
5
3 1/8
REMOVABLE 2 PC ARRESTER SHOWN ABOVE
12 1/2
21 5/8
7
41 1/8

ACE 100

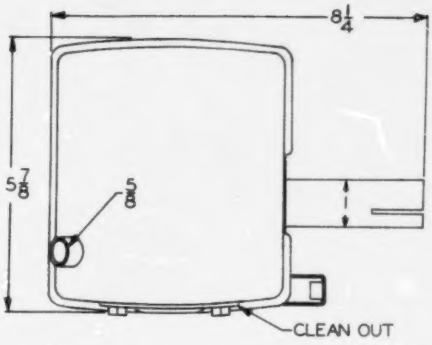
HONDA – AMERICAN HONDA MOTOR CO., INC.

72

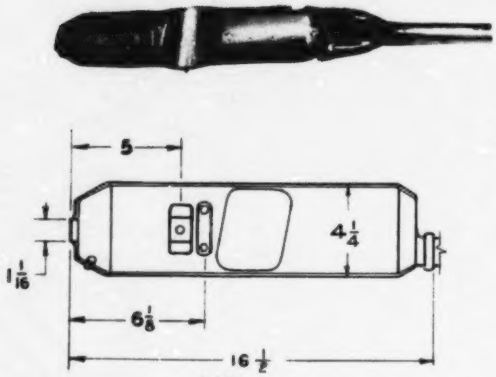

14
7¼
5¾
1½ I D
2⅛
1 I D
5
1½ I D
3⅜
1⅛
6⅝
2⅞
2⅞
2½

72

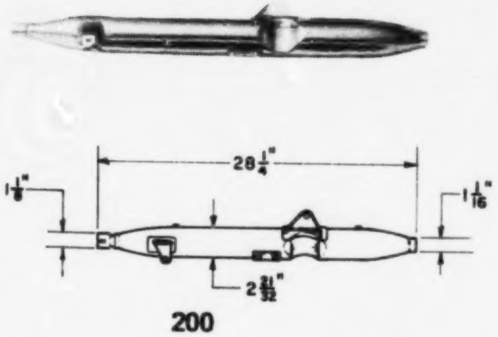
113


8¼
5⅞
⅝
CLEAN OUT

113


5
4¼
1 1/16
6⅛
16½

175

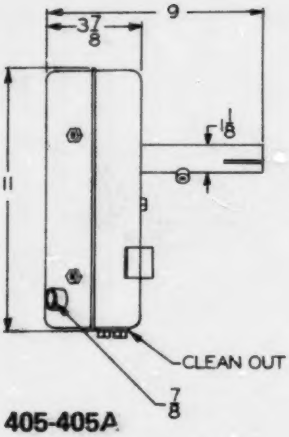

28¼"
1⅛"
1 1/16"
2 21/32"

200

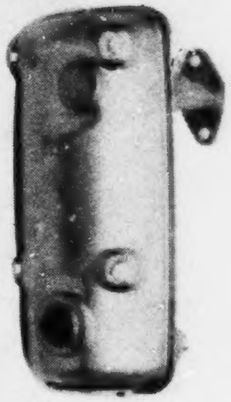
HONDA

HONDA (Continued)

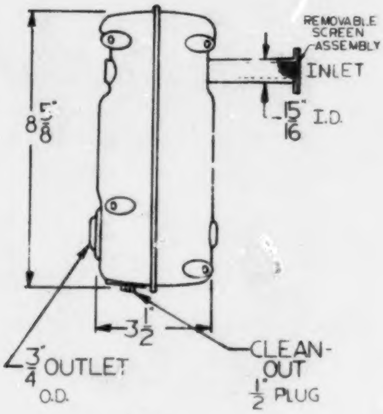
405-405A


9
3 7/8
1 1/8
11
CLEAN OUT
7/8

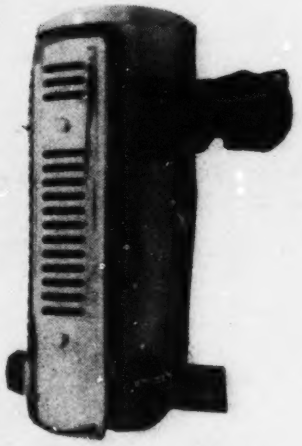
405-405A



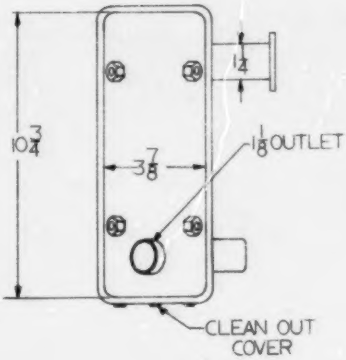
408


REMOVABLE SCREEN ASSEMBLY
INLET
15/16" I.D.
8 5/8
3 1/2"
3/4" OUTLET O.D.
CLEAN-OUT 1/2" PLUG

408

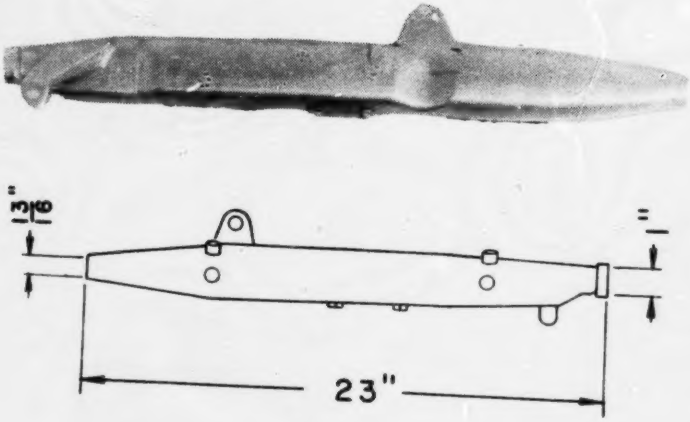


503

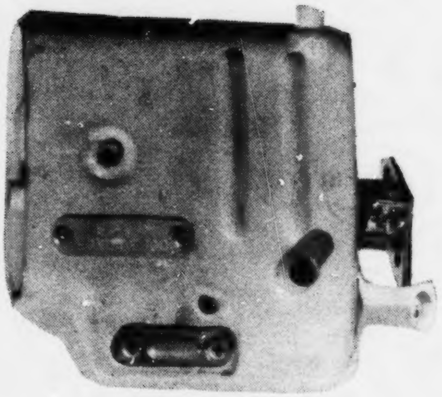

1 1/4
10 3/4
3 7/8
1 1/8 OUTLET
CLEAN OUT COVER

503

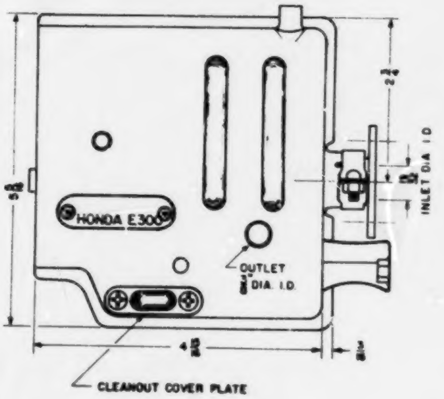
HONDA (Continued)



1063



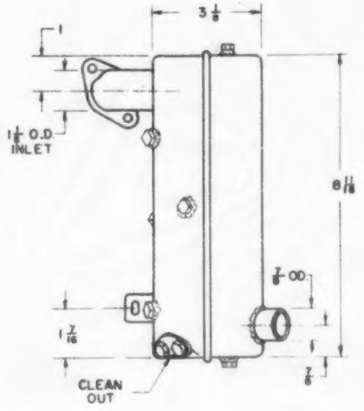
E300


2 1/4
INLET DIA I.D
13/16
5 3/8
HONDA E300
OUTLET
3/4" DIA. I.D.
4 13/16
3/4
CLEANOUT COVER PLATE

E300

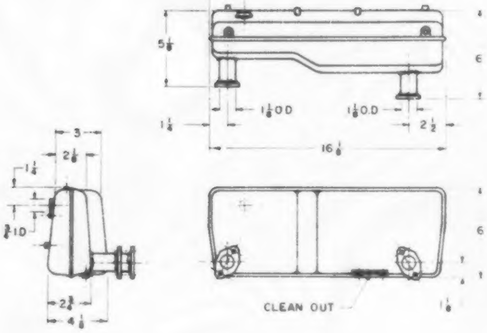
HONDA (Continued)

E400


3 1/8
1
1 1/8 O.D. INLET
8 11/16
7/8 OD
1 7/16
CLEAN OUT
7/8

E400

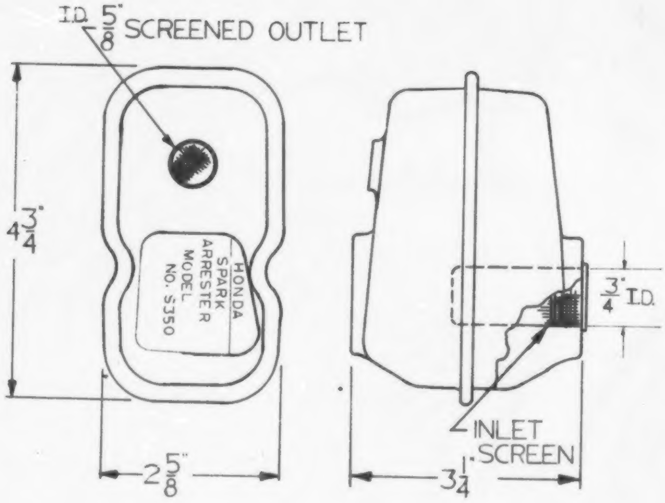
E600


2 1/2
5 1/8
6
1 1/8 O.D
1 1/8 O.D
1 1/4
2 1/2
16 1/8
3
2 1/8
1 1/4
7/8 I.D
2 3/4
4 1/8
6
1
CLEAN OUT
1 1/8

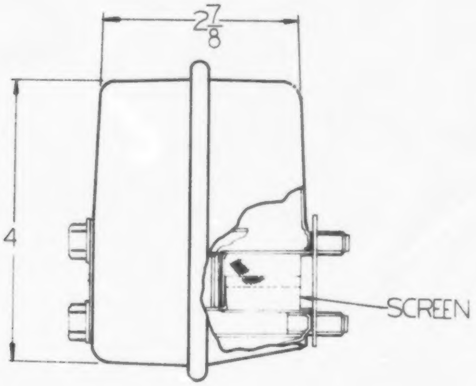
E600

HONDA (Continued)

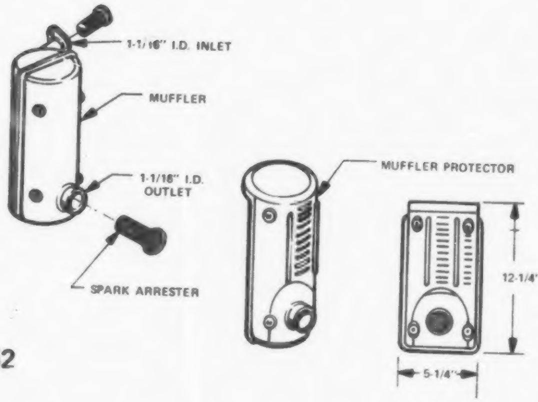
S-350


I.D. 5/8" SCREENED OUTLET
4 3/4"
HONDA SPARK ARRESTER MODEL NO. S350
2 5/8"
3/4" I.D.
INLET SCREEN
3 1/4"

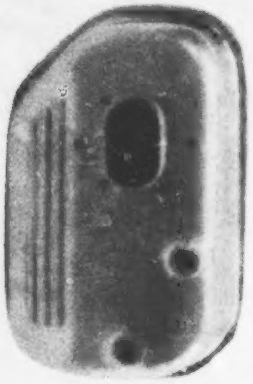
S-351


2 7/8
4
SCREEN

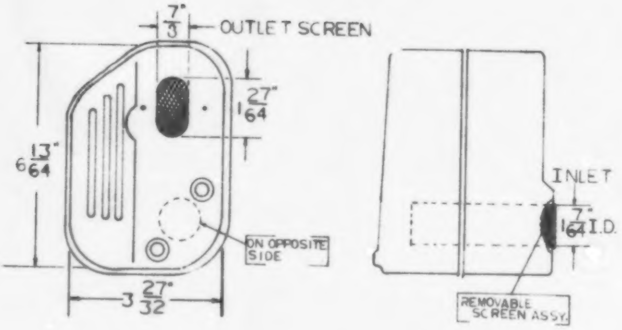
S-352


1-1/16" I.D. INLET
MUFFLER
1-1/16" I.D. OUTLET
SPARK ARRESTER
MUFFLER PROTECTOR
12-1/4"
5-1/4"

HONDA (Continued)

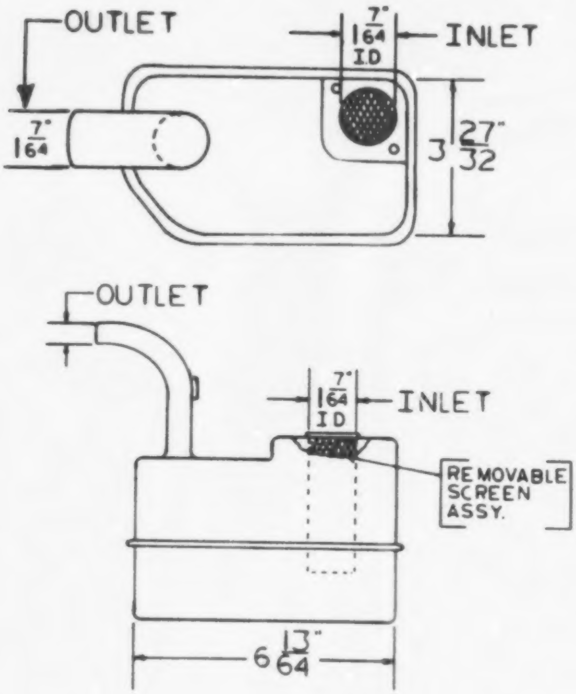


S-353


7" 8
OUTLET SCREEN
1 27/64"
6 13/64"
ON OPPOSITE SIDE
3 27/32"
INLET
1 7/64" I.D.
REMOVABLE SCREEN ASSY.

S-353

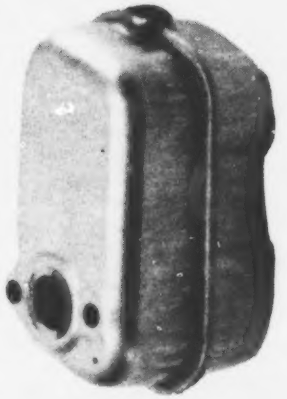
NOTE: Honda S-353 has one body shape with outlet opposite inlet, with NO outlet extension, and one body with outlet on same side as inlet—outlet has extension pipe and same screen.

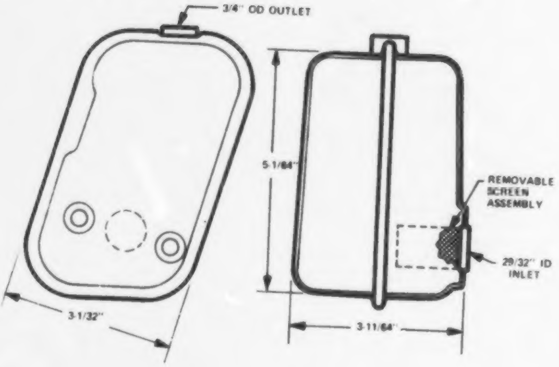

OUTLET
1 7/64" I.D
INLET
1 7/64"
3 27/32"
OUTLET
1 7/64" I D
INLET
REMOVABLE SCREEN ASSY.
6 13/64"

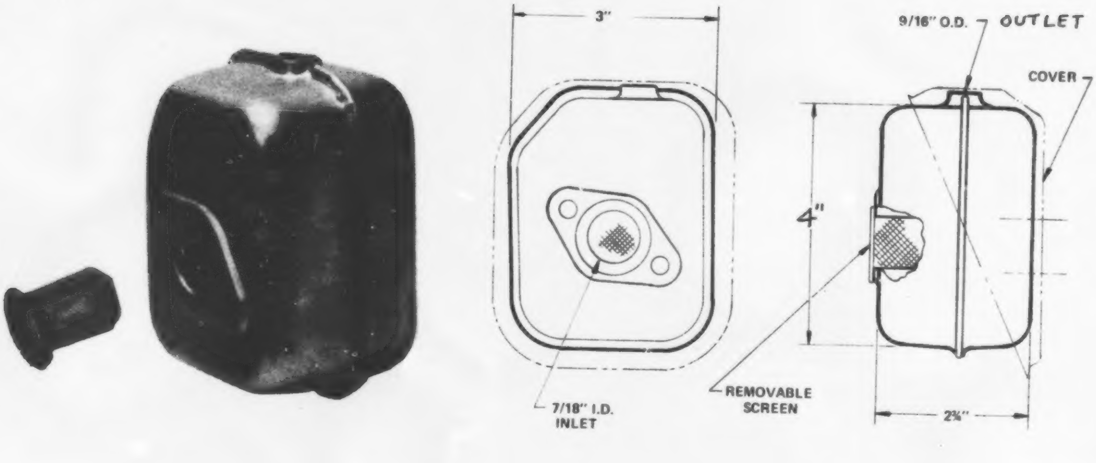
S-353

S-353

HONDA (Continued)




3/4" OD OUTLET
5-1/64"
REMOVABLE SCREEN ASSEMBLY
29/32" ID INLET
3-1/32"
3-11/64"

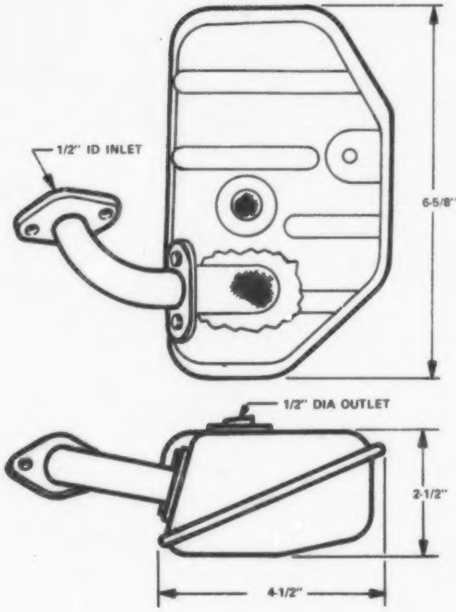

3"
9/16" O.D.
OUTLET
COVER
4"
7/18" I.D. INLET
REMOVABLE SCREEN
2¾"

HONDA S-354

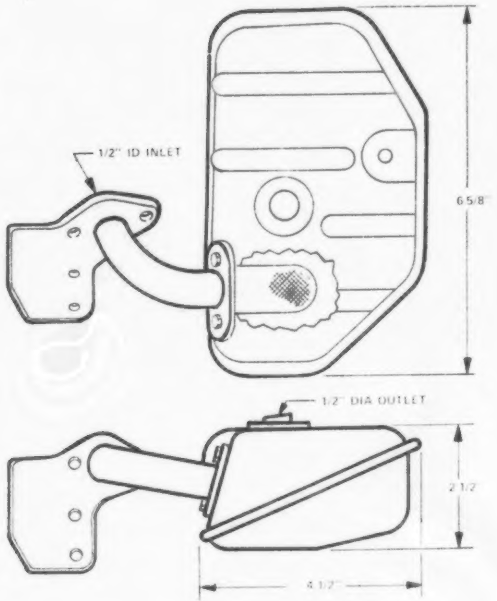
HONDA

HONDA (Continued)

S-355

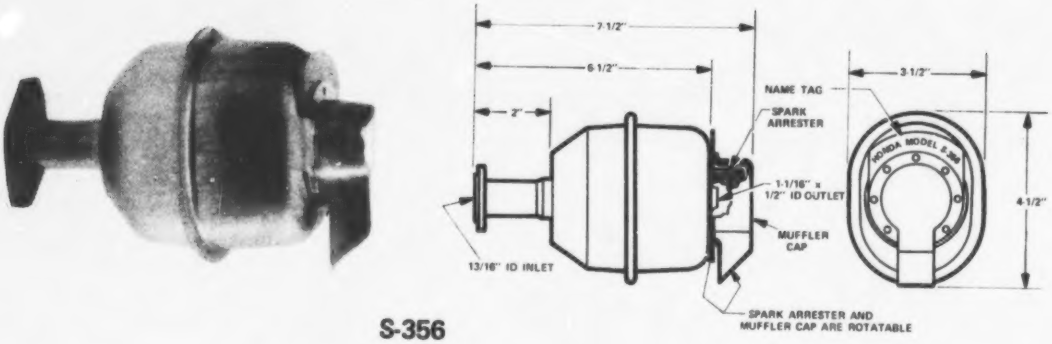

1/2" ID INLET
6-5/8"
1/2" DIA OUTLET
2-1/2"
4-1/2"

S-355

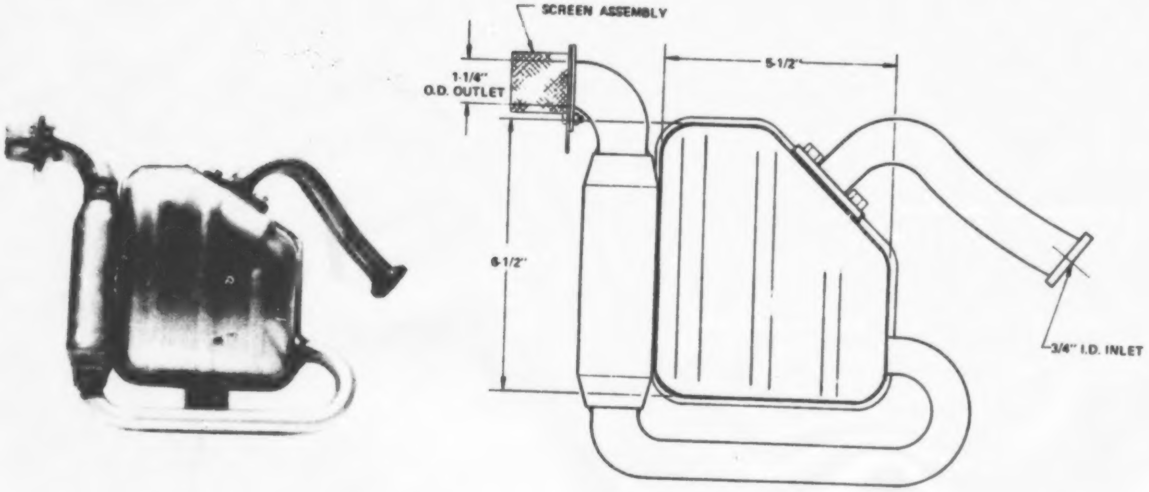

1/2" ID INLET
6-5/8"
1/2" DIA OUTLET
2-1/2
4-1/2"

S-355

HONDA (Continued)


7-1/2"
6-1/2"
2"
3-1/2"
NAME TAG
SPARK ARRESTER
HONDA MODEL S-356
1-1/16" x 1/2" ID OUTLET
4-1/2"
MUFFLER CAP
13/16" ID INLET
SPARK ARRESTER AND MUFFLER CAP ARE ROTATABLE

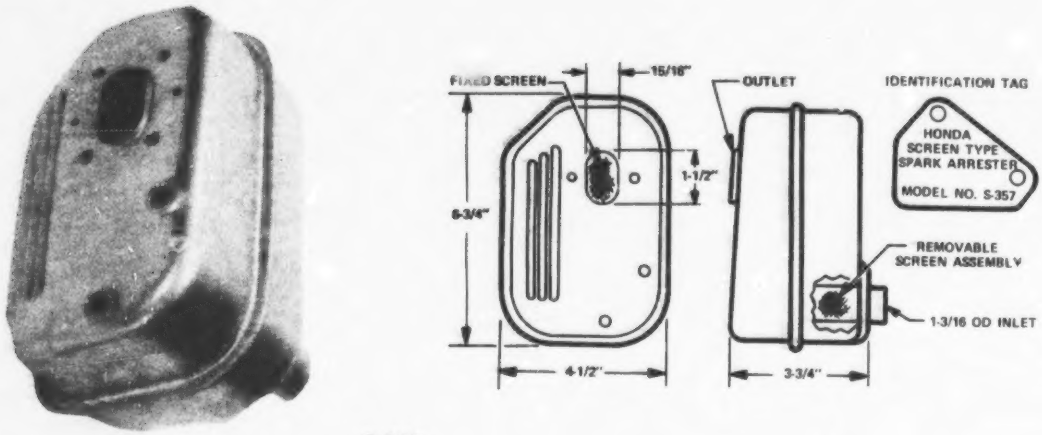
S-356


SCREEN ASSEMBLY
1-1/4" O.D. OUTLET
5-1/2"
6-1/2"
3/4" I.D. INLET

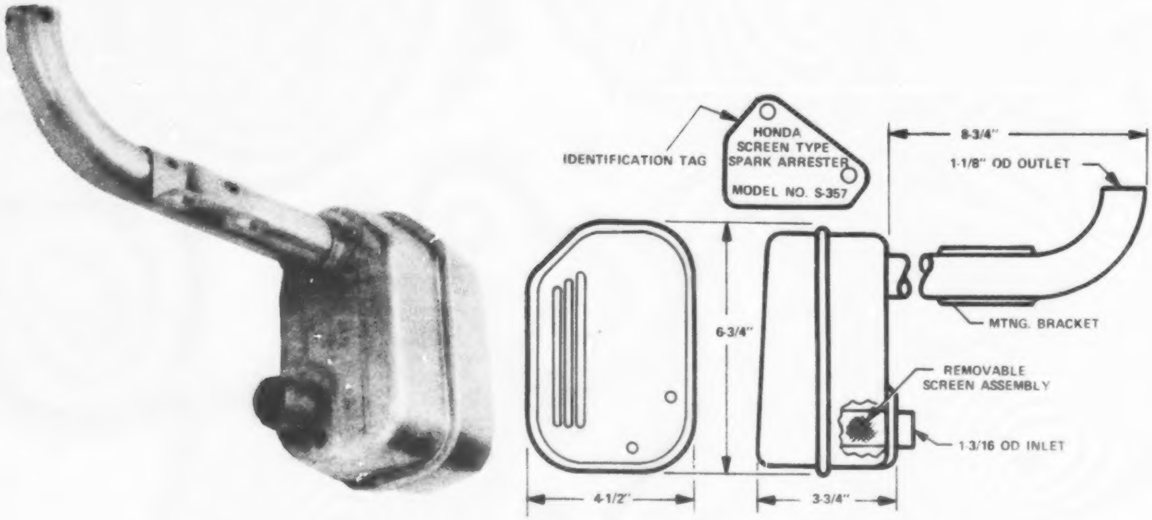
S-356A

HONDA

HONDA (Continued)

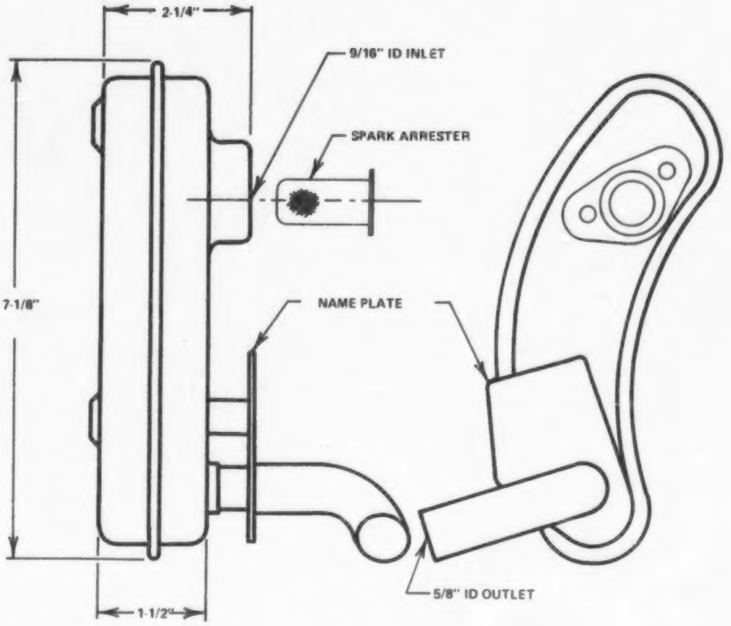

FIXED SCREEN
15/16"
OUTLET
IDENTIFICATION TAG
HONDA
SCREEN TYPE
SPARK ARRESTER
MODEL NO. S-357
1-1/2"
6-3/4"
REMOVABLE
SCREEN ASSEMBLY
1-3/16 OD INLET
4-1/2"
3-3/4"

S-357

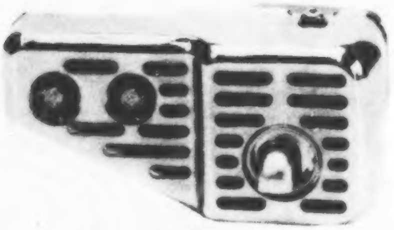

IDENTIFICATION TAG
HONDA
SCREEN TYPE
SPARK ARRESTER
MODEL NO. S-357
8-3/4"
1-1/8" OD OUTLET
MTNG. BRACKET
6-3/4"
REMOVABLE
SCREEN ASSEMBLY
1-3/16 OD INLET
4-1/2"
3-3/4"

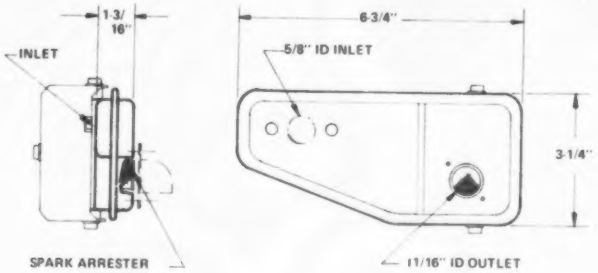
S-357

HONDA (Continued)

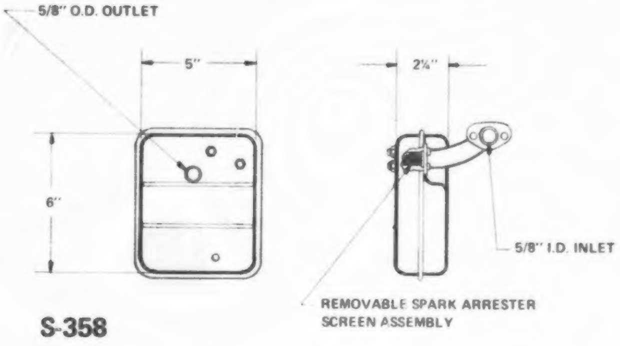

2-1/4"
9/16" ID INLET
SPARK ARRESTER
7-1/8"
NAME PLATE
5/8" ID OUTLET
1-1/2"

S-358




1-3/16"
INLET
SPARK ARRESTER
6-3/4"
5/8" ID INLET
3-1/4"
11/16" ID OUTLET

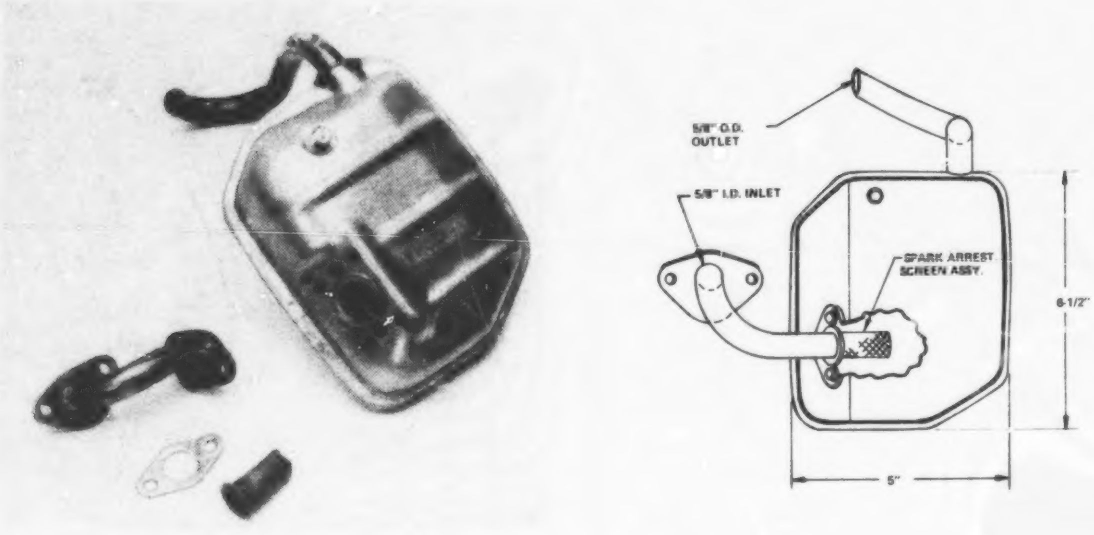
S-358


5/8" O.D. OUTLET
5"
6"
2¼"
5/8" I.D. INLET
REMOVABLE SPARK ARRESTER SCREEN ASSEMBLY

S-358

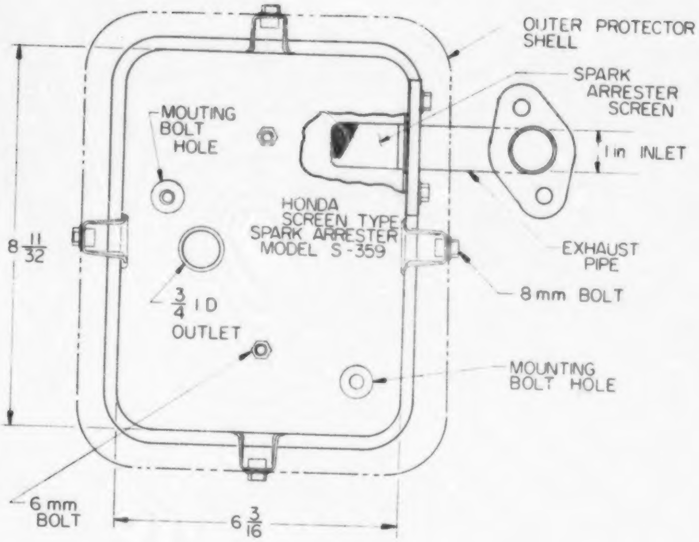
HONDA

HONDA (Continued)

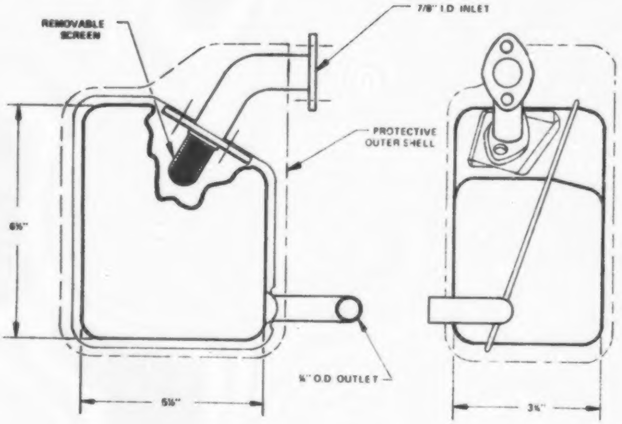

5/8" O.D.
OUTLET
5/8" I.D. INLET
SPARK ARREST
SCREEN ASSY.
6-1/2"
5"

HONDA S-358

HONDA (Continued)

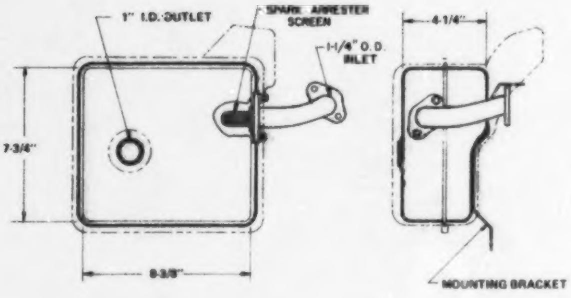

OUTER PROTECTOR SHELL
SPARK ARRESTER SCREEN
MOUTING BOLT HOLE
1 in INLET
HONDA SCREEN TYPE SPARK ARRESTER MODEL S-359
EXHAUST PIPE
8 11/32
3/4 I.D OUTLET
8 mm BOLT
MOUNTING BOLT HOLE
6 mm BOLT
6 3/16

359

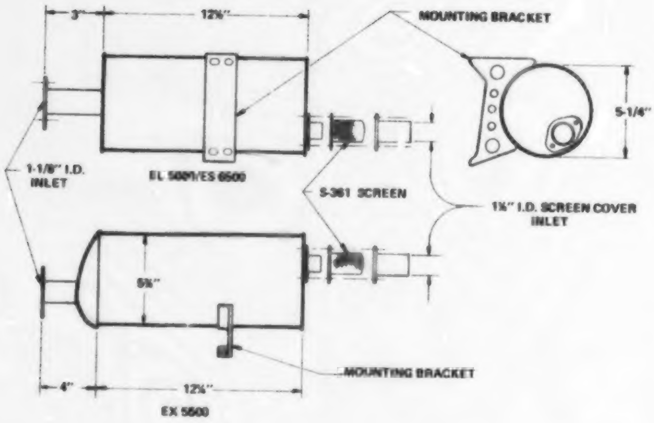

REMOVABLE SCREEN
7/8" I.D INLET
PROTECTIVE OUTER SHELL
6¾"
¾" O.D OUTLET
5¾"
3¾"

S-359

HONDA (Continued)

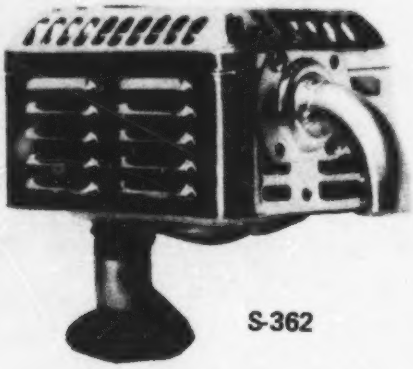

1" I.D. OUTLET
SPARK ARRESTER SCREEN
1-1/4" O.D. INLET
4-1/4"
7-3/4"
8-3/8"
MOUNTING BRACKET

360

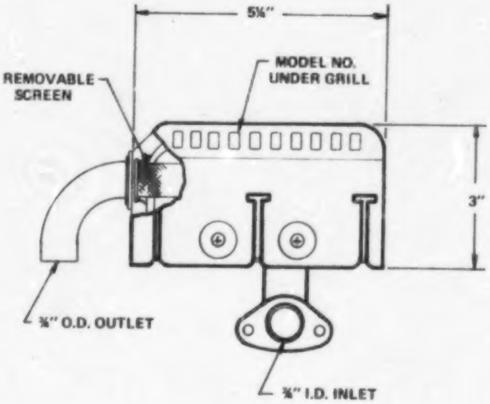

3"
12¾"
MOUNTING BRACKET
5-1/4"
1-1/8" I.D. INLET
EL 5000/ES 6500
S-361 SCREEN
1⅛" I.D. SCREEN COVER INLET
5⅝"
MOUNTING BRACKET
4"
12¾"
EX 5500

S-361

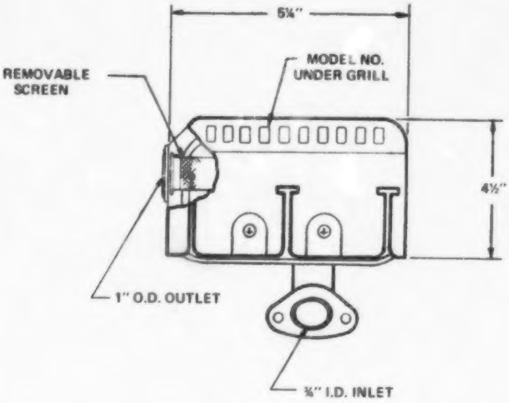
HONDA (Continued)

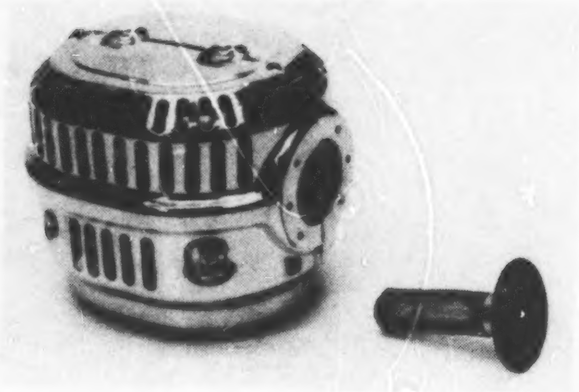


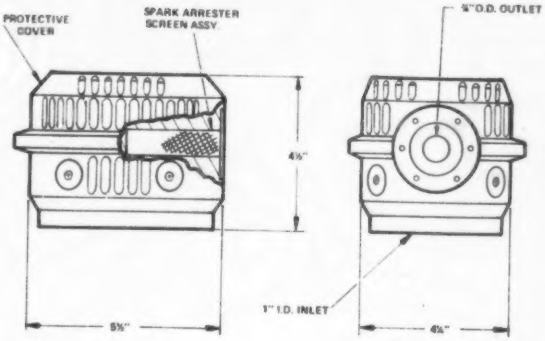
S-362


5¼"
REMOVABLE SCREEN
MODEL NO. UNDER GRILL
3"
¾" O.D. OUTLET
¾" I.D. INLET

S-363

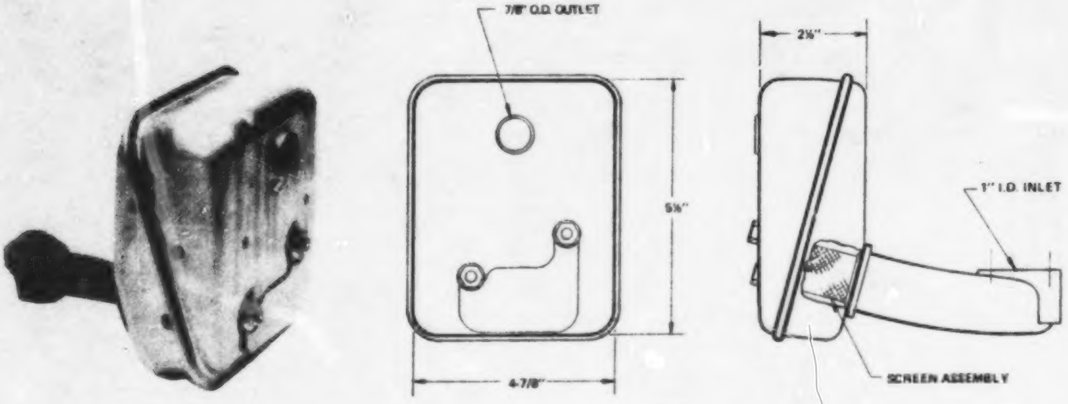

5¼"
REMOVABLE SCREEN
MODEL NO. UNDER GRILL
4½"
1" O.D. OUTLET
¾" I.D. INLET




PROTECTIVE COVER
SPARK ARRESTER SCREEN ASSY
¾" O.D. OUTLET
4½"
1" I.D. INLET
5½"
4¼"

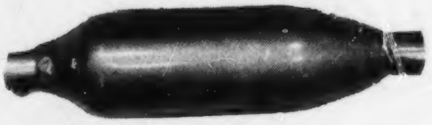
S-364

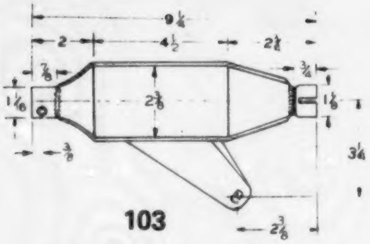
HONDA (Continued)


7/8" O.D. OUTLET
2¼"
5¼"
1" I.D. INLET
4-7/8"
SCREEN ASSEMBLY

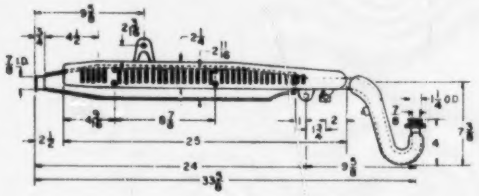
S-365

HONDA-KRIZMAN



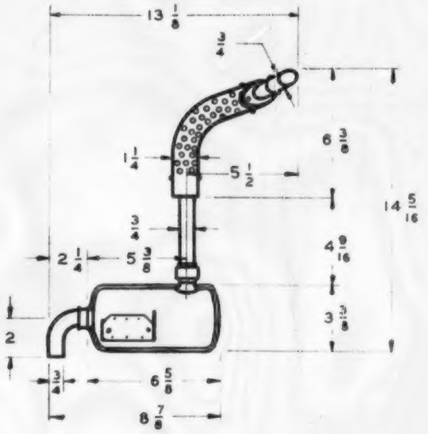

9 1/4
2
4 1/2
2 1/4
7/8
3/4
1 1/16
2 3/8
1 1/8
3/8
3 1/4
2 3/8

103

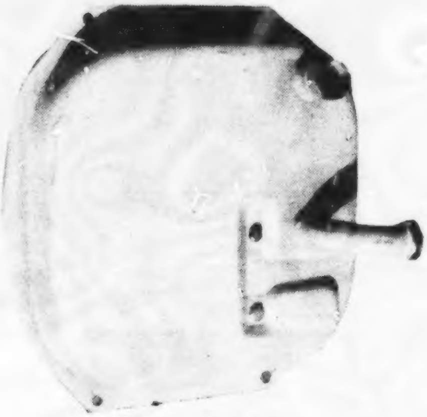

9 5/8
2 3/16
2 1/4
2 11/16
4 1/2
2 1/2
25
24
9 5/8
33 5/8
1 1/4 OD
7 3/8
4

104

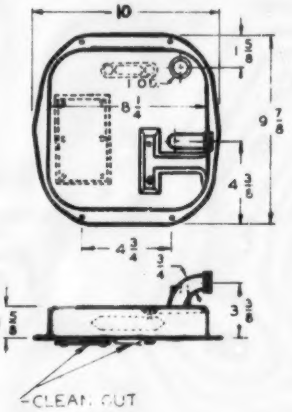
105


13 1/8
3/4
6 3/8
1 1/4
5 1/2
14 5/16
3/4
2 1/4
5 3/8
4 9/16
3 3/8
2
3/4
6 5/8
8 7/8

105

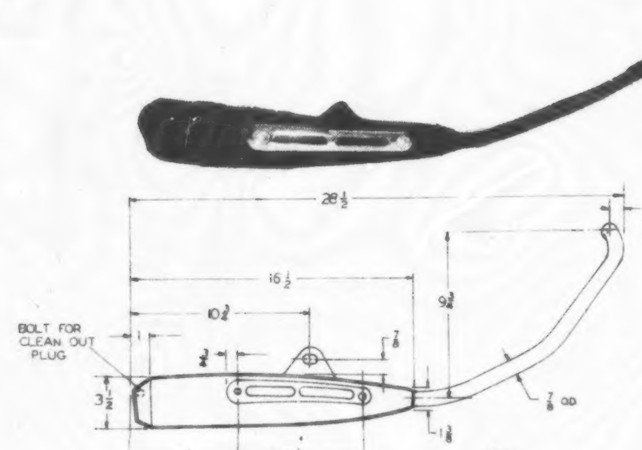


106

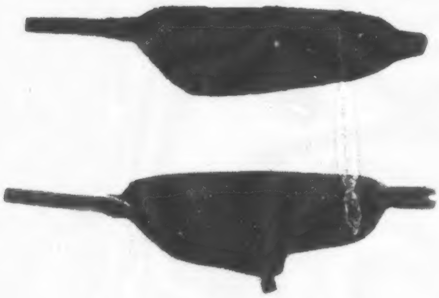

10
1 5/8
106
8 1/4
9 7/8
4 3/8
4 3/4
3/4
1 5/8
3 3/8
CLEAN OUT

106

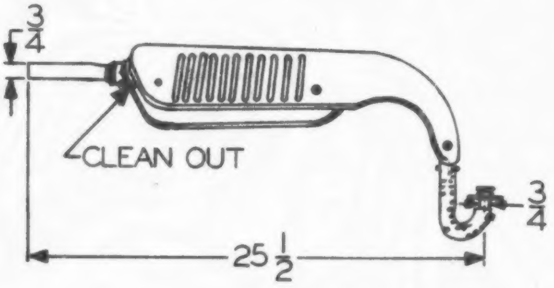
HONDA-KRIZMAN (Continued)


28 1/2
3/4
16 1/2
9 3/4
10 3/4
BOLT FOR CLEAN OUT PLUG
1
3/4
7/8
3 1/2
7/8 OD
1 3/8
6 1/2
7 1/4

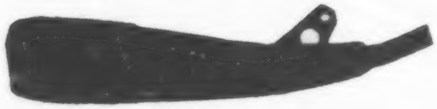
107



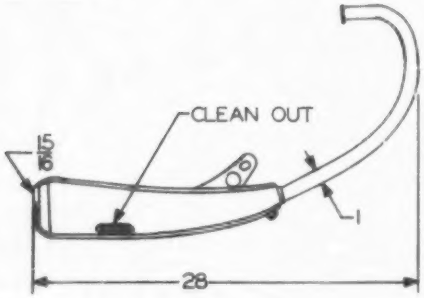
108


3/4
CLEAN OUT
3/4
25 1/2

108



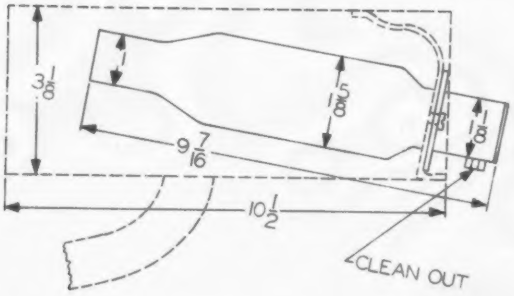
109


CLEAN OUT
15/16
1
28

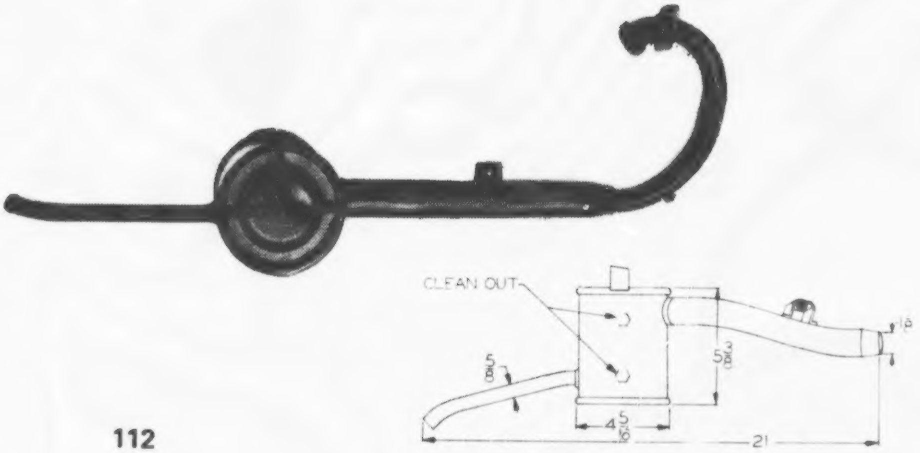
109

HONDA-KRIZMAN (Continued)

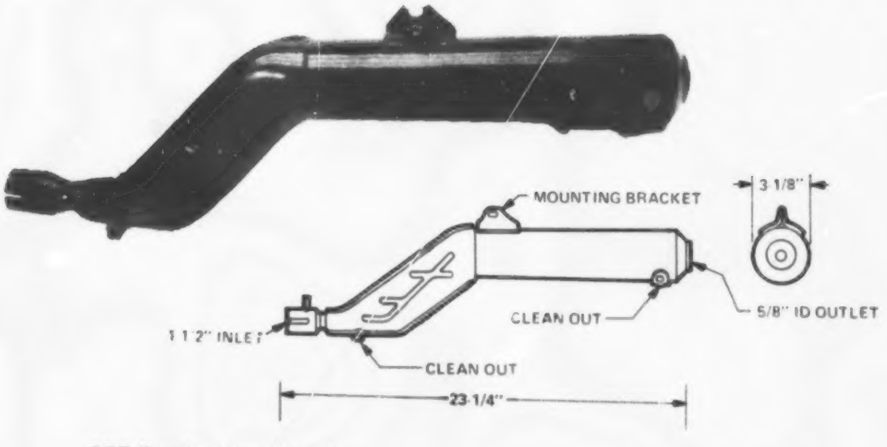
111


3 1/8
1 5/8
1 1/8
9 7/16
10 1/2
CLEAN OUT

111

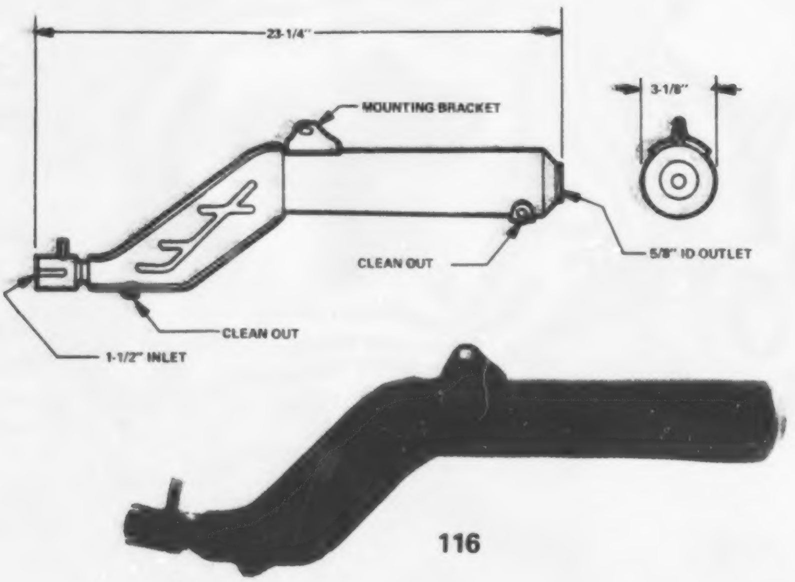

CLEAN OUT
5/8
5 3/8
1/8
4 5/16
21

112

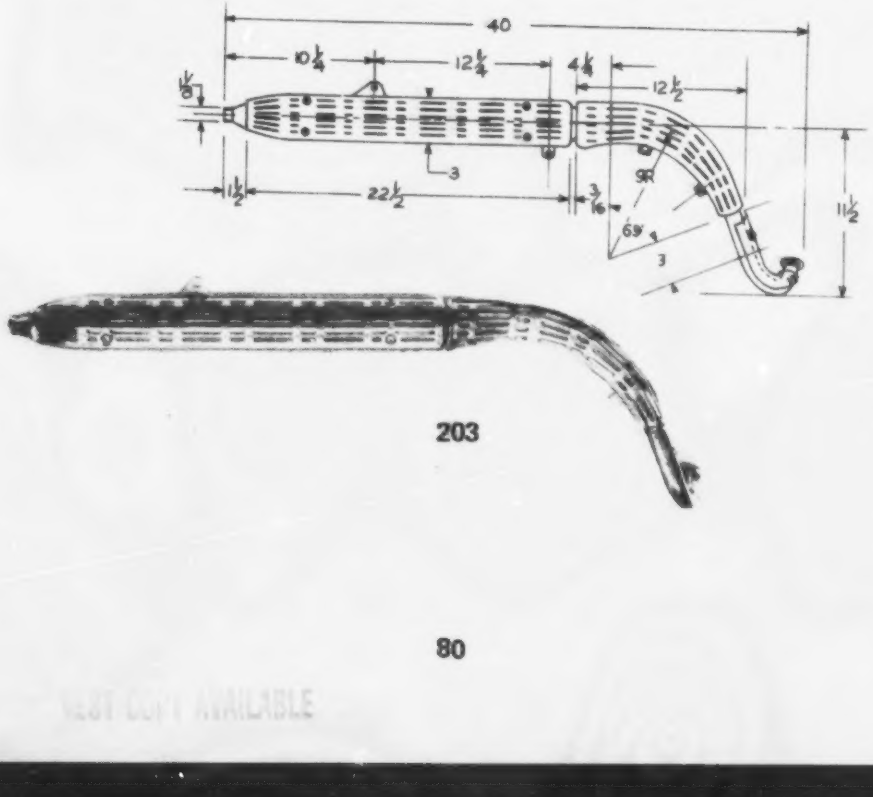

MOUNTING BRACKET
3 1/8"
1 1/2" INLET
CLEAN OUT
5/8" ID OUTLET
CLEAN OUT
23-1/4"

115 Production Model

HONDA-KRIZMAN (Continued)


23-1/4"
MOUNTING BRACKET
3-1/8"
CLEAN OUT
5/8" ID OUTLET
CLEAN OUT
1-1/2" INLET

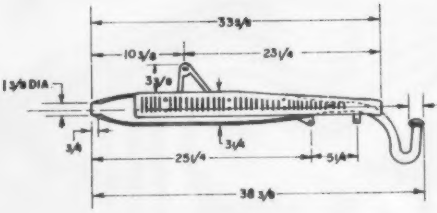
116


40
10¼
12¼
4¼
12½
⅛
3
1½
22½
3/16
9R
65°
3
11½

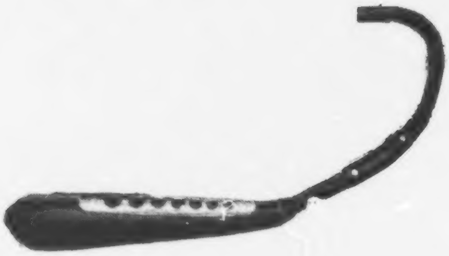
203

HONDA-KRIZMAN (Continued)

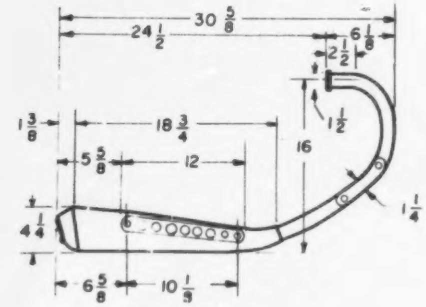
204


33 3/8
10 3/8
23 1/4
3 3/8
1 3/8 DIA
3/4
3 1/4
1 1/2
25 1/4
5 1/4
38 3/8

204

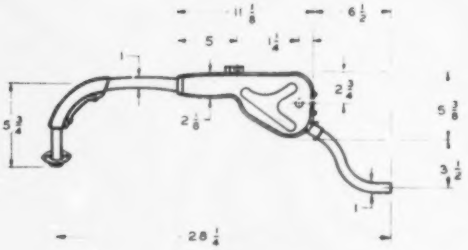


205


30 5/8
24 1/2
6 1/8
2 1/2
1 3/8
18 3/4
5 5/8
12
1 1/2
16
1 1/4
4 1/4
6 5/8
10 1/8

205

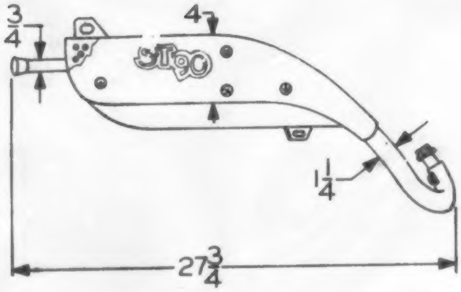
206


11 1/8
6 1/2
5
1 1/4
1
2 3/4
5 3/4
2 1/8
5 3/8
3 1/2
1
28 1/4

206

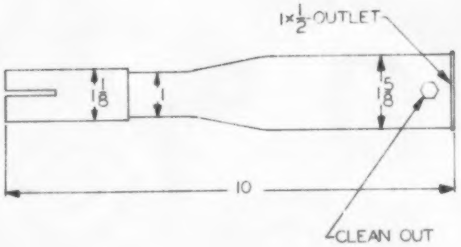
HONDA-KRIZMAN (Continued)

207


3/4
4
ST90
1 1/4
27 3/4

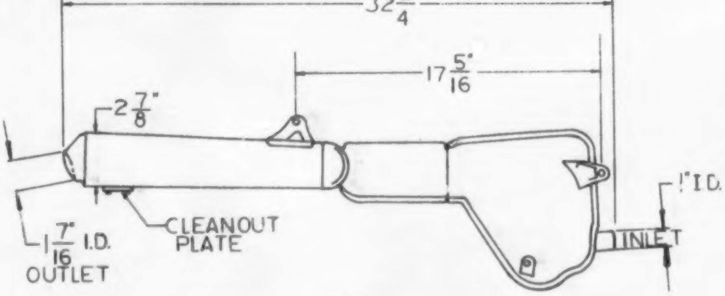
207

209


1×1/2-OUTLET
1 1/8
1
1 5/8
10
CLEAN OUT

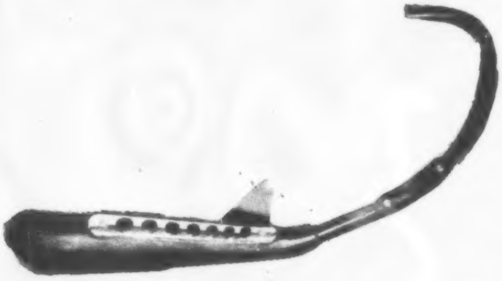
209

210

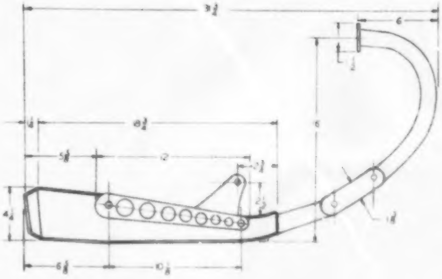

32 3/4"
17 5/16"
2 7/8"
1 7/16" I.D.
OUTLET
CLEANOUT
PLATE
1" I.D.
INLET

210

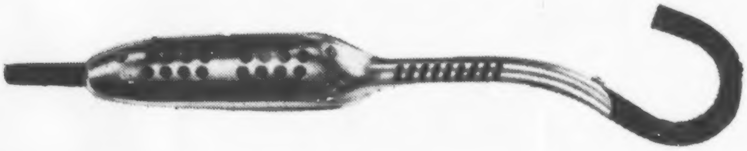
HONDA-KRIZMAN (Continued)



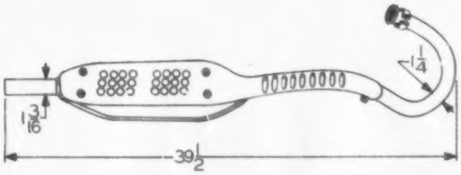
300



300

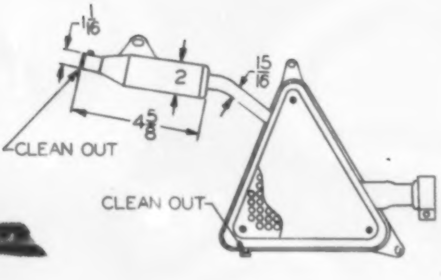


301


1 1/4
1 3/16
39 1/2

301

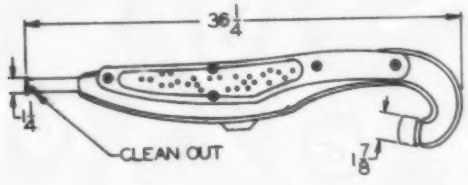
302


1 1/16
2
15/16
4 5/8
CLEAN OUT
CLEAN OUT

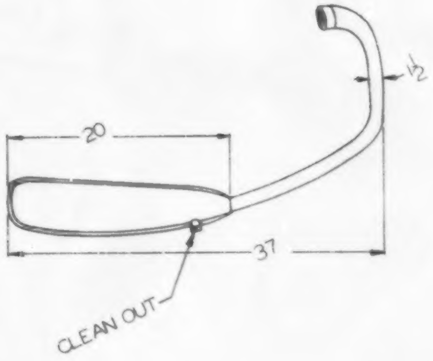
302

HONDA-KRIZMAN

HONDA-KRIZMAN (Continued)

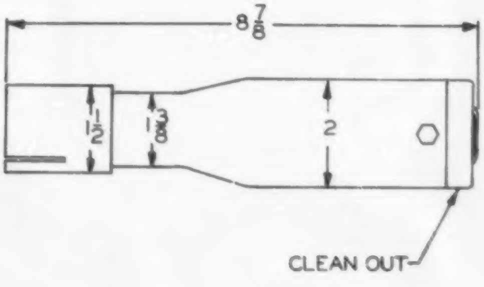

36 1/4
1 1/4
CLEAN OUT
1 7/8

303


1/2
20
37
CLEAN OUT

304

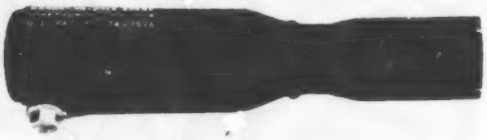
304

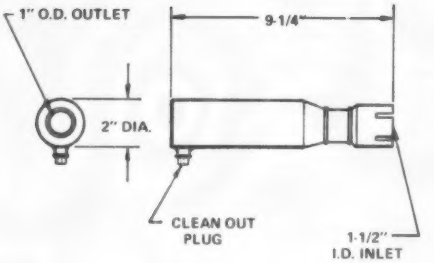

8 7/8
1 1/2
1 3/8
2
CLEAN OUT

305

305

HONDA-KRIZMAN (Continued)

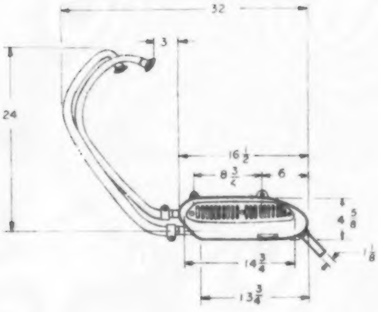



1" O.D. OUTLET
9-1/4"
2" DIA.
CLEAN OUT PLUG
1-1/2" I.D. INLET

306

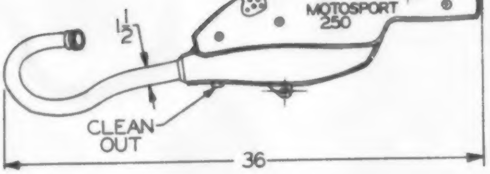
HONDA-KRIZMAN (Continued)

400


32
3
24
16 1/2
8 3/4
6
4 5/8
1 1/8
14 3/4
13 3/4

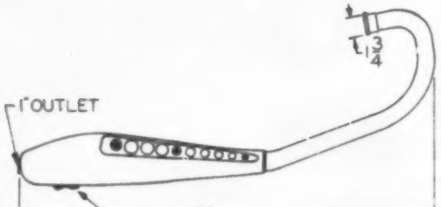
400

401


1" OUTLET
MOTOSPORT 250
1 1/2
CLEAN OUT
36

401

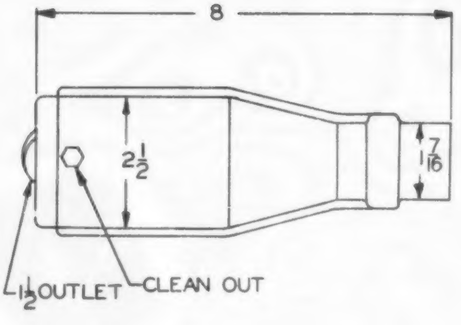
402


1 3/4
1" OUTLET
36
CLEAN OUT

402

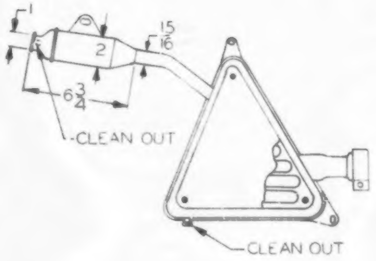
HONDA-KRIZMAN (Continued)

404


8
$2\frac{1}{2}$
$1\frac{7}{16}$
$1\frac{1}{2}$ OUTLET
CLEAN OUT

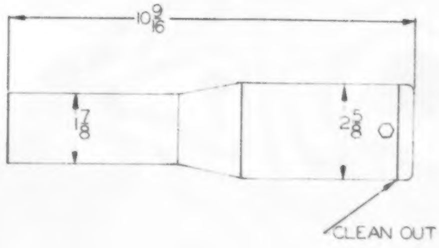
404

406


1
2
$\frac{15}{16}$
$6\frac{3}{4}$
CLEAN OUT
CLEAN OUT

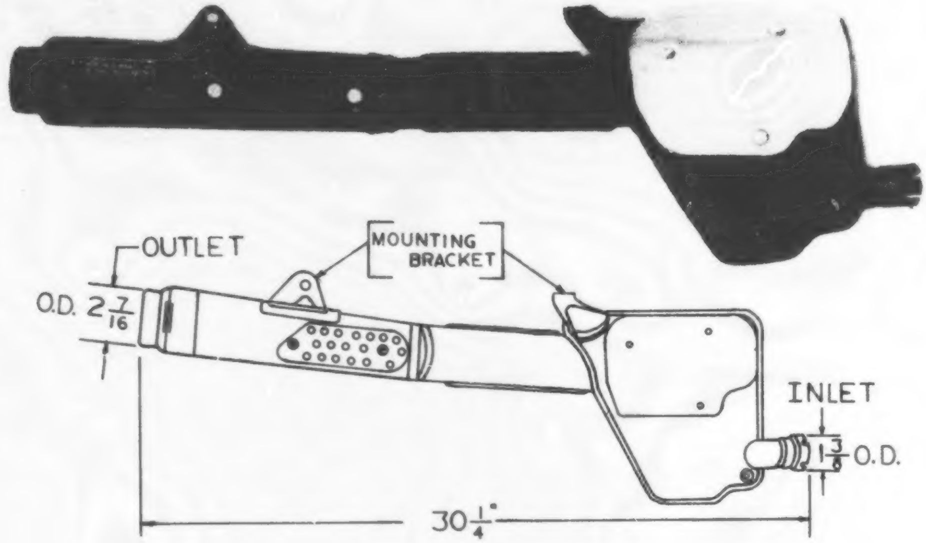
406

407

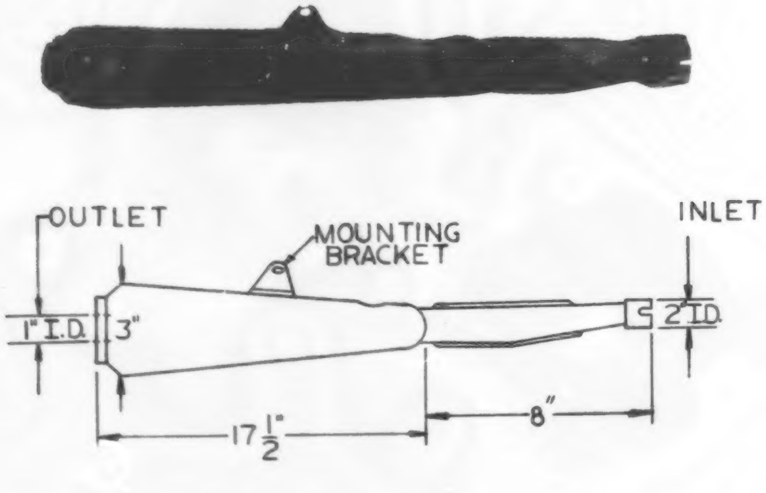

$10\frac{9}{16}$
$1\frac{7}{8}$
$2\frac{5}{8}$
CLEAN OUT

407

HONDA-KRIZMAN (Continued)

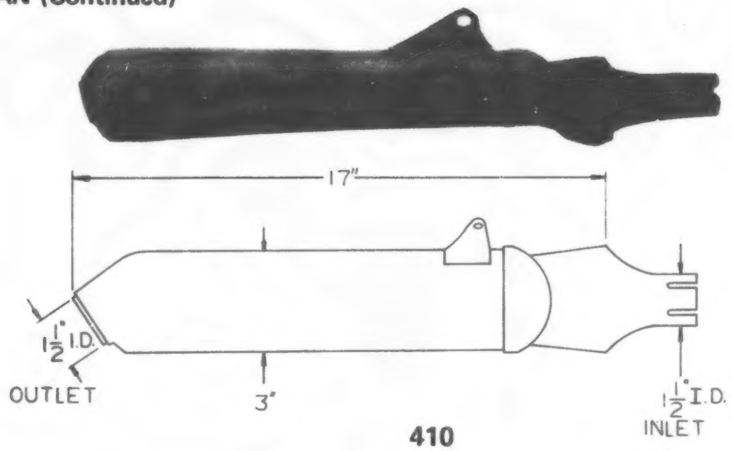

OUTLET
MOUNTING BRACKET
O.D. 2 7/16
INLET
1 3/8 O.D.
30 1/4"

409

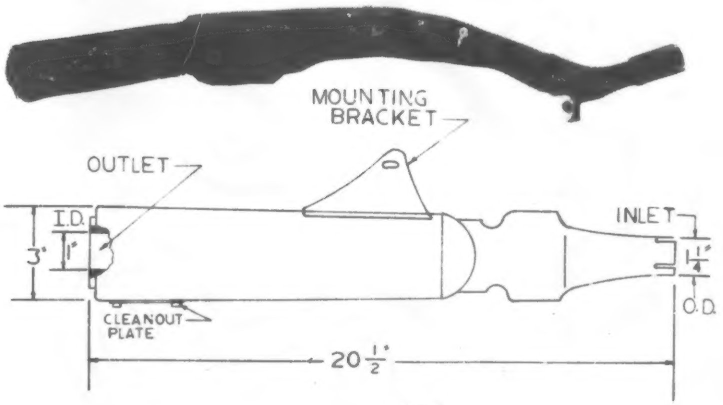

OUTLET
MOUNTING BRACKET
INLET
1" I.D.
3"
2 I.D.
17 1/2"
8"

409A

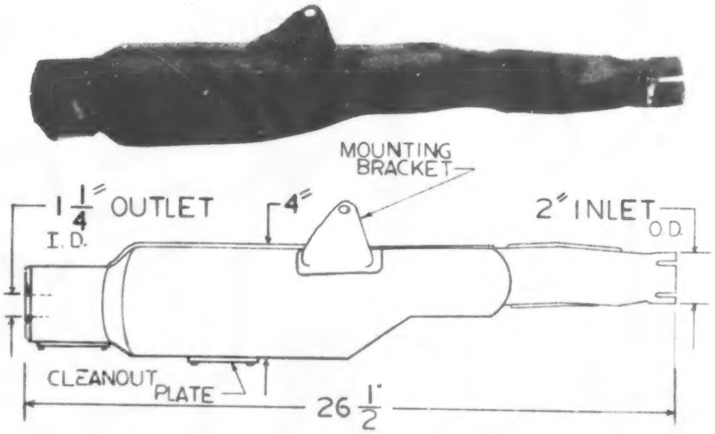
HONDA-KRIZMAN (Continued)


17"
1 1/2" I.D.
OUTLET
3"
1 1/2" I.D.
INLET

410

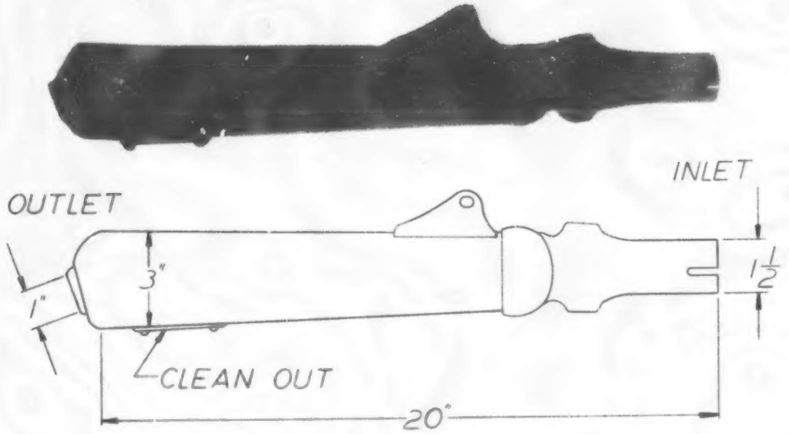

MOUNTING
BRACKET
OUTLET
I.D.
3"
1"
INLET
1 1/4"
O.D.
CLEANOUT
PLATE
20 1/2"

411

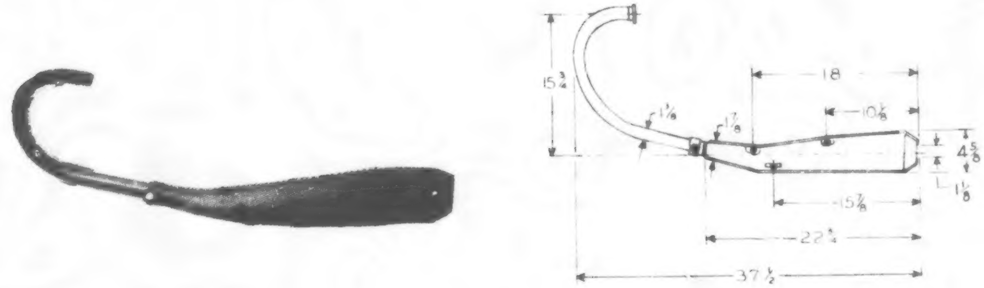

MOUNTING
BRACKET
1 1/4" OUTLET
I. D.
4"
2" INLET
O.D.
CLEANOUT PLATE
26 1/2"

412

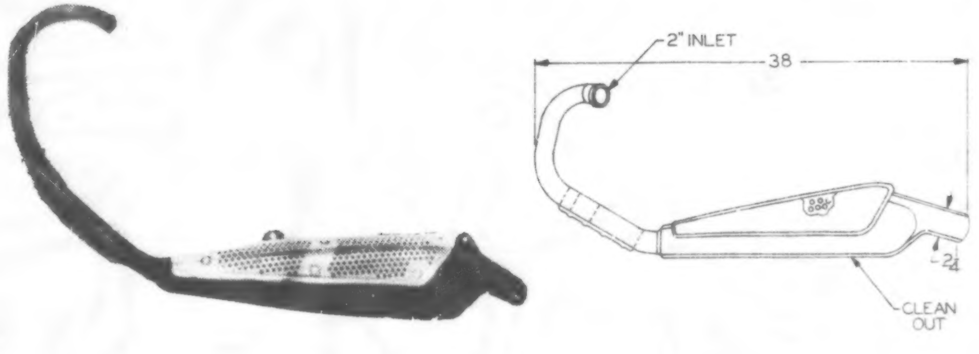
HONDA-KRIZMAN (Continued)


INLET
OUTLET
3"
1"
1 1/2
CLEAN OUT
20"

413

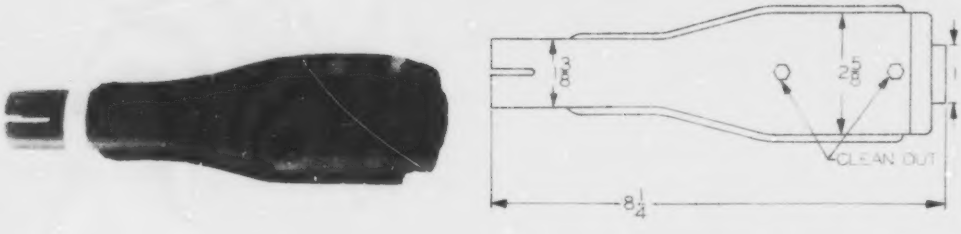

15 3/4
18
1 1/8
1 7/8
10 1/8
4 5/8
1 1/8
15 7/8
22 3/4
37 1/2

500

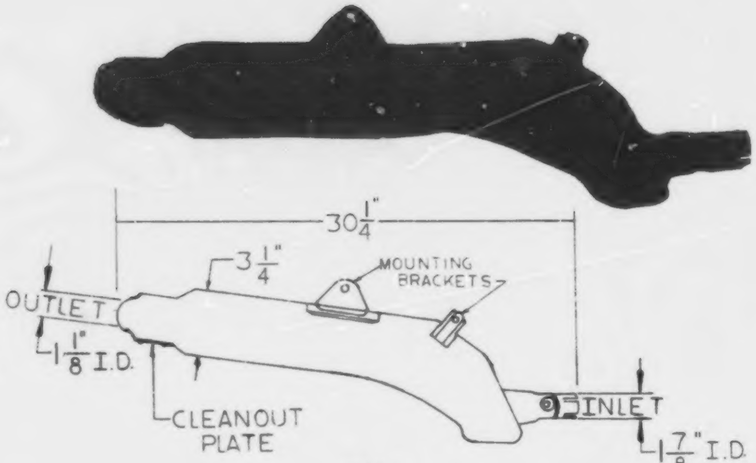

2" INLET
38
2 1/4
CLEAN OUT

501

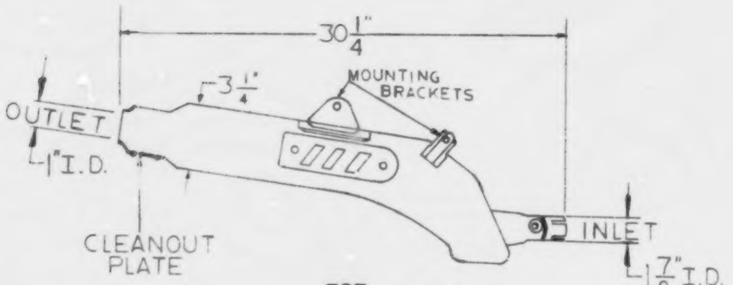
HONDA-KRIZMAN (Continued)


1 3/8
2 5/8
CLEAN OUT
8 1/4

502

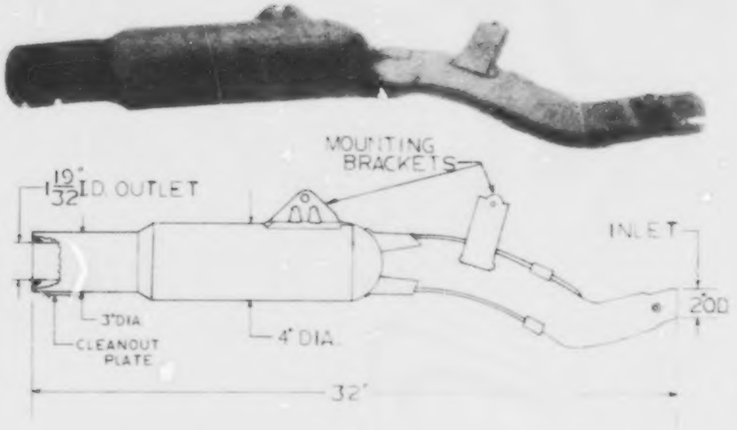

30 1/4"
3 1/4"
MOUNTING BRACKETS
OUTLET
1 1/8" I.D.
CLEANOUT PLATE
INLET
1 7/8" I.D.

504

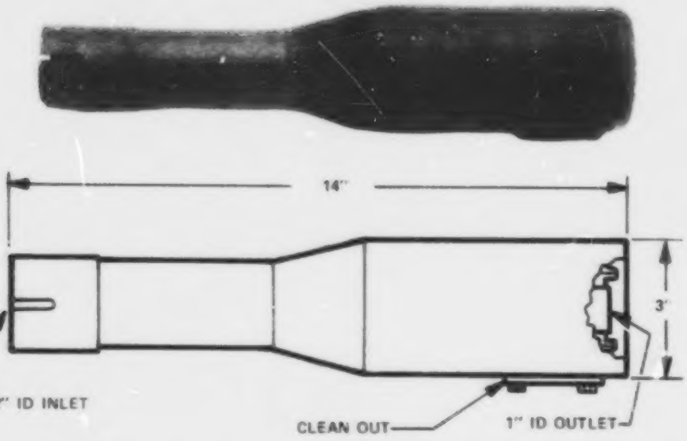

30 1/4"
3 1/4"
MOUNTING BRACKETS
OUTLET
1" I.D.
CLEANOUT PLATE
INLET
1 7/8" I.D.

505

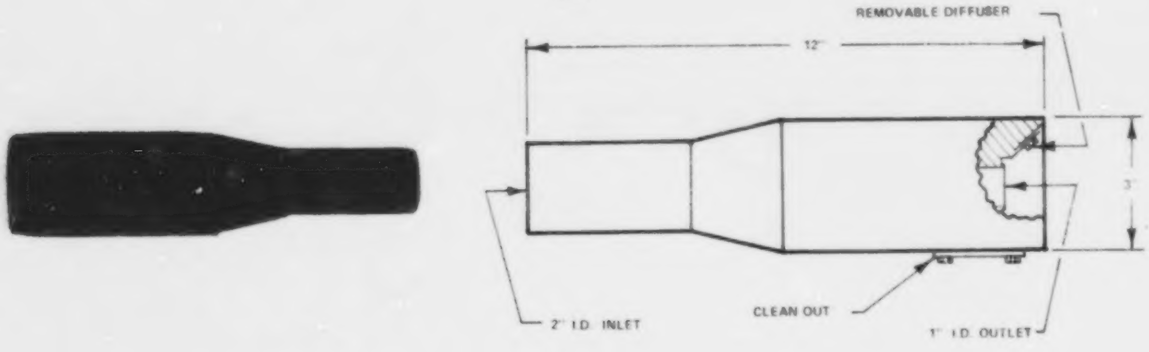
HONDA-KRIZMAN (Continued)


MOUNTING BRACKETS
$1\frac{19}{32}$" I.D. OUTLET
INLET
2.00
3" DIA
CLEANOUT PLATE
4" DIA
32"

506

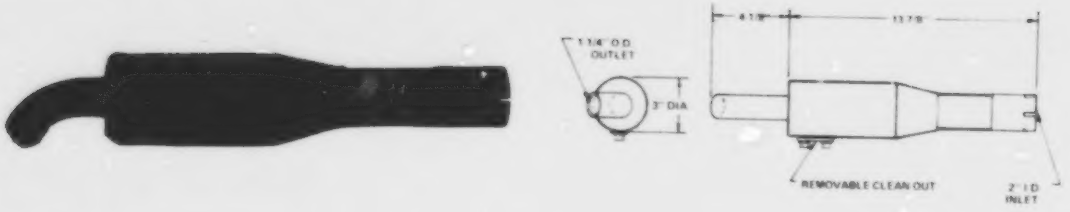

14"
3"
2" ID INLET
CLEAN OUT
1" ID OUTLET

507


REMOVABLE DIFFUSER
12"
3"
2" I.D. INLET
CLEAN OUT
1" I.D. OUTLET

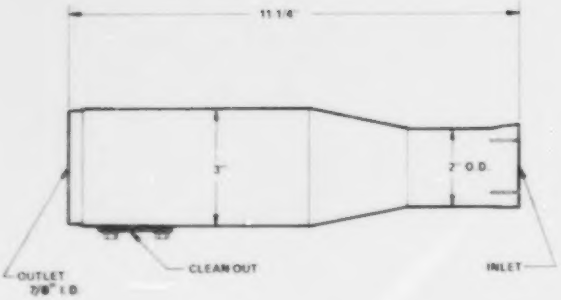
508

HONDA-KRIZMAN (Continued)

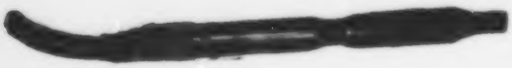

1 1/4" O.D. OUTLET
3" DIA
4 1/8"
13 7/8"
REMOVABLE CLEAN OUT
2" I.D. INLET

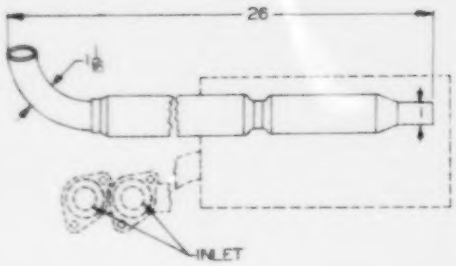
508 (Curved Outlet)

HONDA-KRIZMAN (Continued)

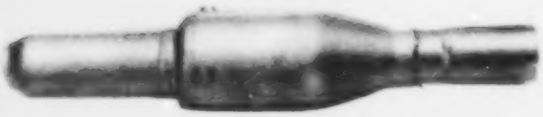

11 1/4"
3"
2" O.D.
OUTLET
7/8" I.D.
CLEAN OUT
INLET

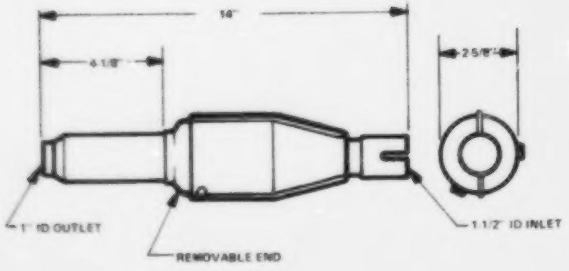
509





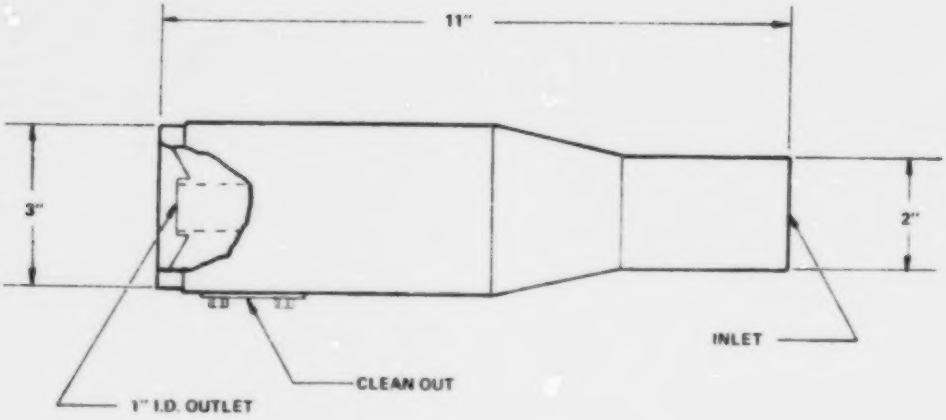
600




14"
4 1/8"
2 5/8"
1" ID OUTLET
REMOVABLE END
1 1/2" ID INLET

601

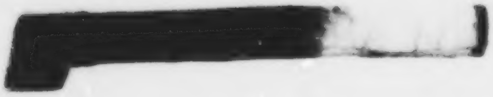
HONDA-KRIZMAN (Continued)


11"
3"
2"
INLET
CLEAN OUT
1" I.D. OUTLET

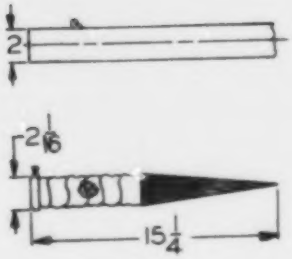
700

HOOKER

HOOKER

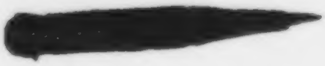


26281

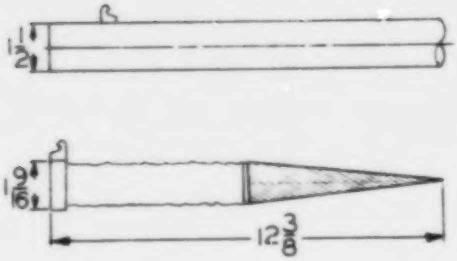


2
$2\frac{1}{16}$
$15\frac{1}{4}$

26281

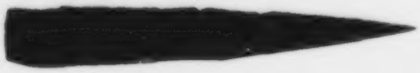


26282

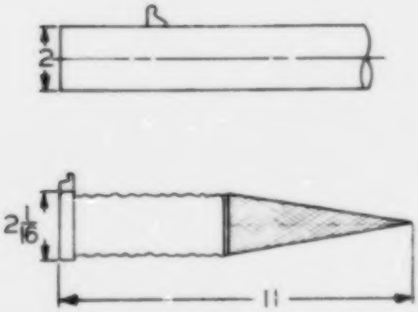


$1\frac{1}{2}$
$1\frac{9}{16}$
$12\frac{3}{8}$

26282



26283

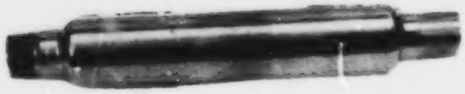


2
$2\frac{1}{16}$
11

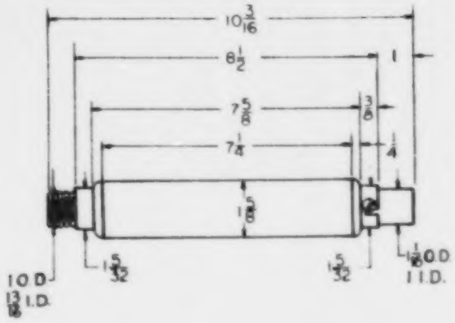
26283

HORSTMAN-KRIZMAN — HORSTMAN MANUFACTURING CO., INC.

*TYPE A THRU E PROVIDE VARIOUS INLET DIMENSIONS AND SHAPES



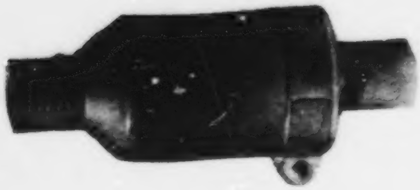
HE*


$10\frac{3}{16}$
$8\frac{1}{2}$
1
$7\frac{5}{8}$
$\frac{3}{8}$
$7\frac{1}{4}$
$\frac{1}{4}$
$1\frac{5}{8}$
1 O.D.
$\frac{13}{16}$ I.D.
$1\frac{5}{32}$
$1\frac{5}{32}$
$1\frac{1}{16}$ O.D.
1 I.D.

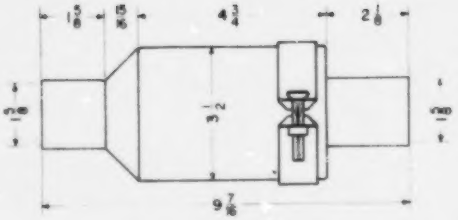
HE*

HUTCHINS

HUTCHINS – HUTCHINS, HUGH A.

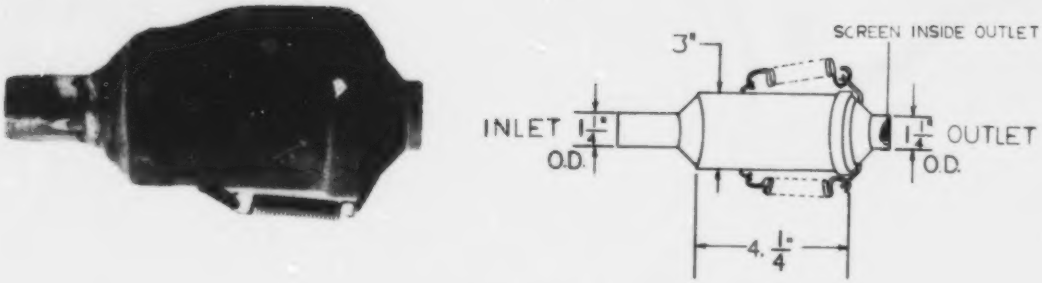


NO.1


1 5/8
15/16
4 3/4
2 1/8
1 3/8
3 1/2
1 3/8
9 7/16

NO. 1

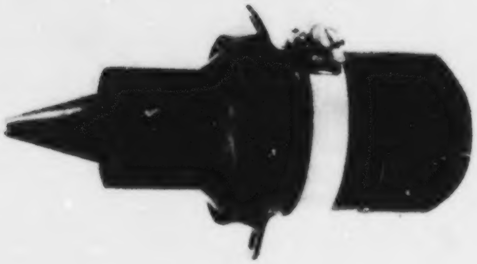
HUSQVARNA

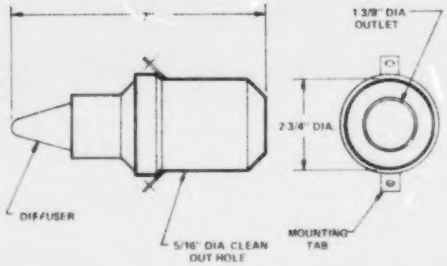

3"
SCREEN INSIDE OUTLET
INLET $1\frac{1}{4}$" O.D.
OUTLET $1\frac{1}{4}$" O.D.
$4\frac{1}{4}$"

F15-1041

HUSQVARNA-KRIZMAN

HUSQVARNA-KRIZMAN




7"
1 3/8" DIA
OUTLET
2 3/4" DIA.
DIFFUSER
5/16" DIA CLEAN
OUT HOLE
MOUNTING
TAB

KS 500D

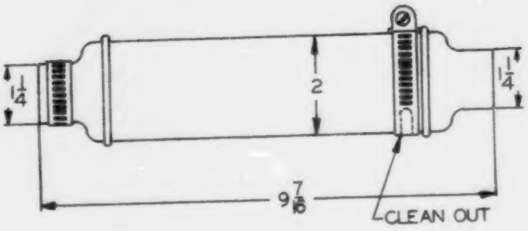
INTERNATIONAL HARVESTER

FOR IHC 70769C1 SEE NELSON T-12818 (p. 146)
FOR IHC 829640C91 SEE NELSON T-13994 (p. 152)
FOR IHC 561217C92 SEE NELSON T-13651 (p. 150)
FOR IHC 677817R91 SEE NELSON T-10374 (p. 138)
FOR IHC 563507C91 SEE NELSON T-14005 (p. 156)
FOR IHC 829176C91 SEE NELSON T-14099 (p. 157)

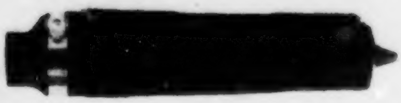
KRIZMAN

J&R KRIZMAN

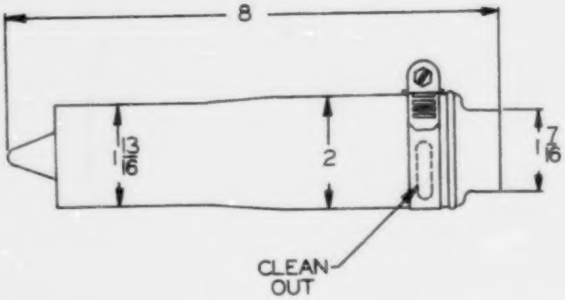
KS 350


1 1/4
2
1 1/4
9 7/16
CLEAN OUT

KS 350

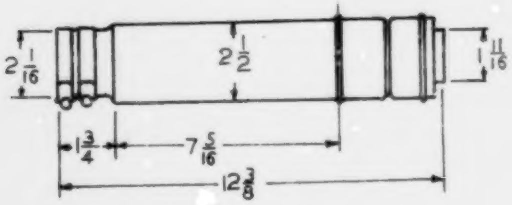


KS 500 A&C


8
1 13/16
2
1 7/16
CLEAN OUT

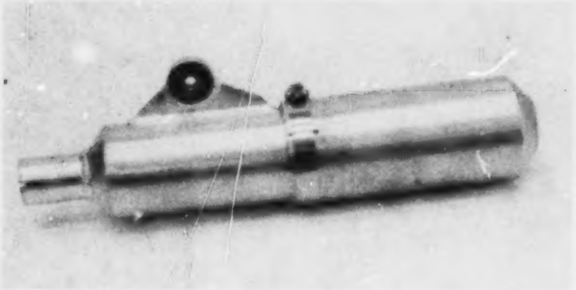
KS 500 A&C

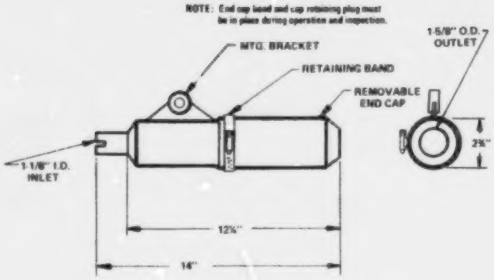
KS 650


2 1/16
2 1/2
1 11/16
1 3/4
7 5/16
12 3/8

KS 650

J&R KRIZMAN (Continued)



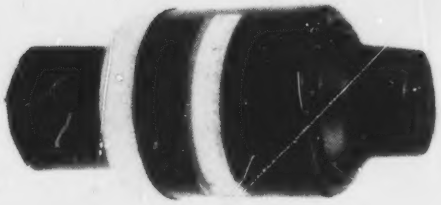


NOTE: End cap band and cap retaining plug must be in place during operation and inspection.

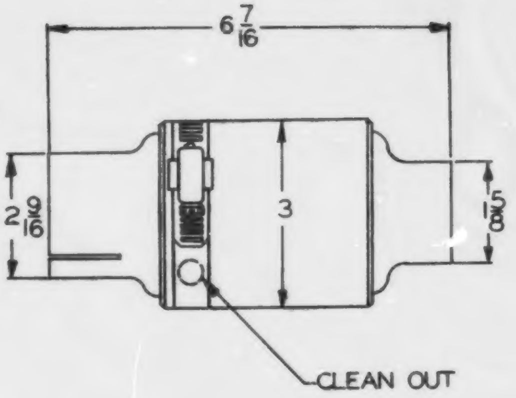
MTG. BRACKET
RETAINING BAND
REMOVABLE END CAP
1-5/8" O.D. OUTLET
1-1/8" I.D. INLET
12¾"
14"
2⅜"

KS 650A

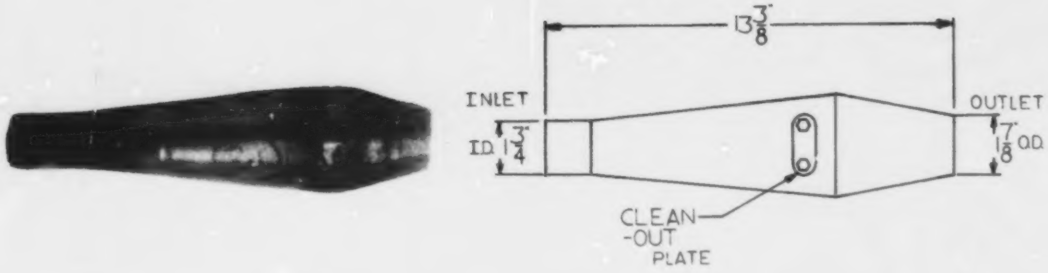
J&R KRIZMAN (Continued)



KS 650V


6 7/16
2 9/16
3
1 5/8
CLEAN OUT

KS 650V

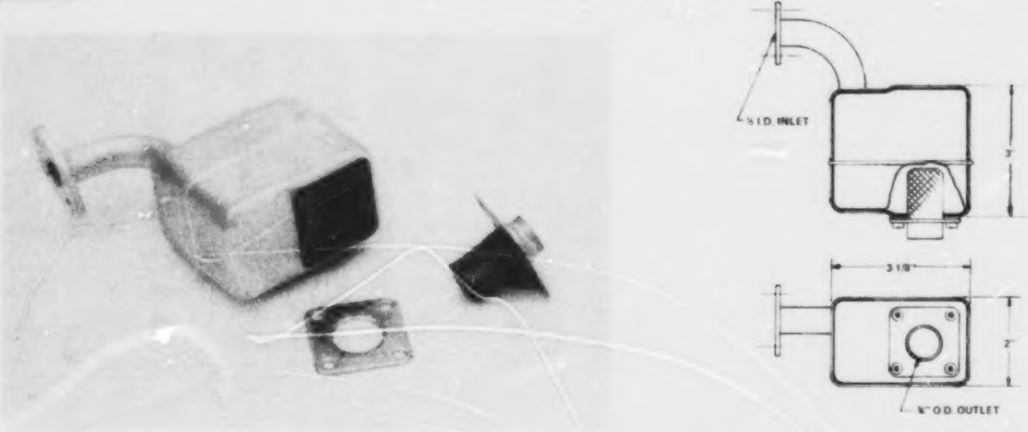

13 3/8"
INLET
I.D. 1 3/4"
OUTLET
1 7/8" O.D.
CLEAN-
-OUT
PLATE

KS 800

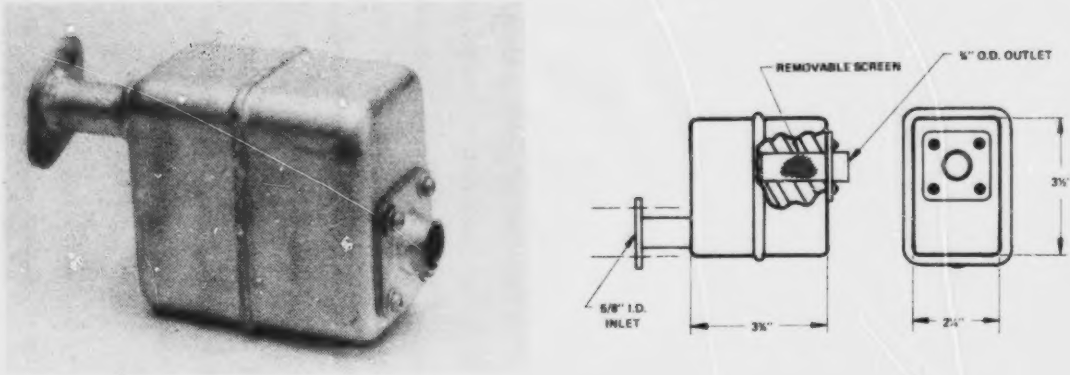
JOHN DEERE — JOHN DEERE HARVESTER WORKS

FOR JOHN DEERE AH-75693 – SEE NELSON T-10213 (p. 136)
" " AH-75694 – " " T-10214 (p. 137)
" " AH-75695 – " " T-10215 (p. 137)
" " AH-80388 – " " T-11145 (p. 141)
" " AH-84965 – " " T-12499 (p. 145)
" " AH-87289 - " " T-11927 (p. 144)
" " AT-32701 – " " T-10968 (p. 141)
" " AT-33686 – " " T-9605 (p. 134)

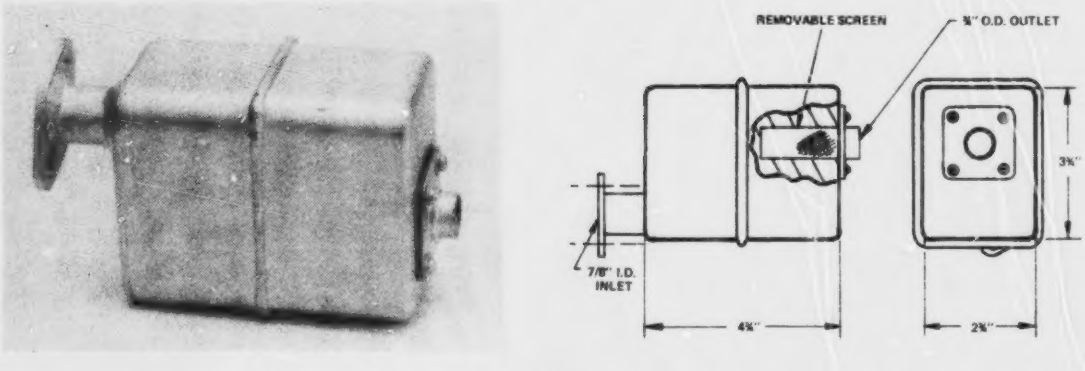
KAWASAKI


½ I.D. INLET
3"
3 1/8"
2"
¾" O.D. OUTLET

FA76D

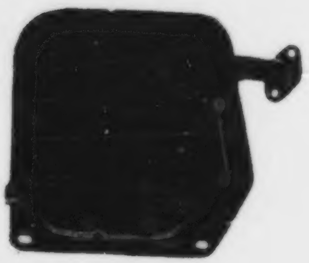
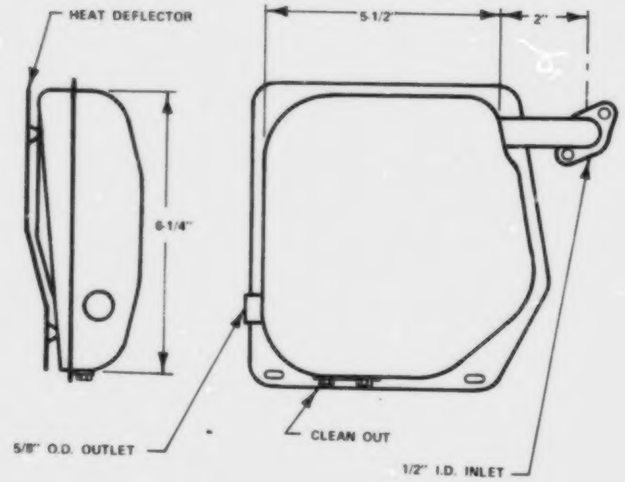

REMOVABLE SCREEN
¾" O.D. OUTLET
3½"
5/8" I.D. INLET
3⅝"
2¼"

FA130D

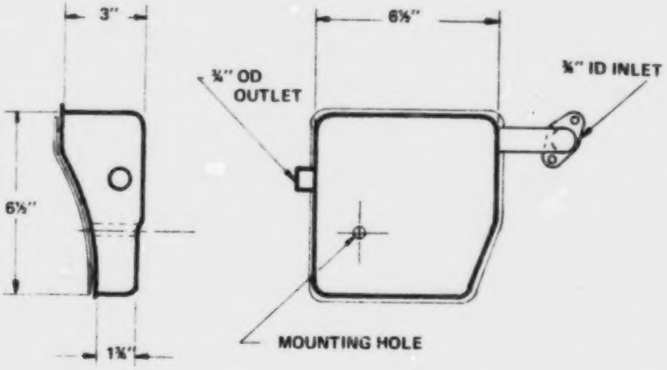

REMOVABLE SCREEN
¾" O.D. OUTLET
3¾"
7/8" I.D. INLET
4¾"
2⅞"

FA210D

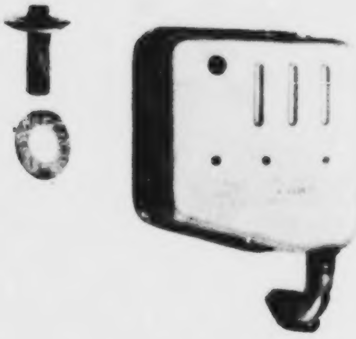
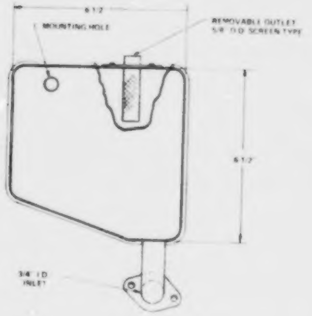
KAWASAKI (Continued)



HEAT DEFLECTOR
5-1/2"
2"
6-1/4"
5/8" O.D. OUTLET
CLEAN OUT
1/2" I.D. INLET

KG-550

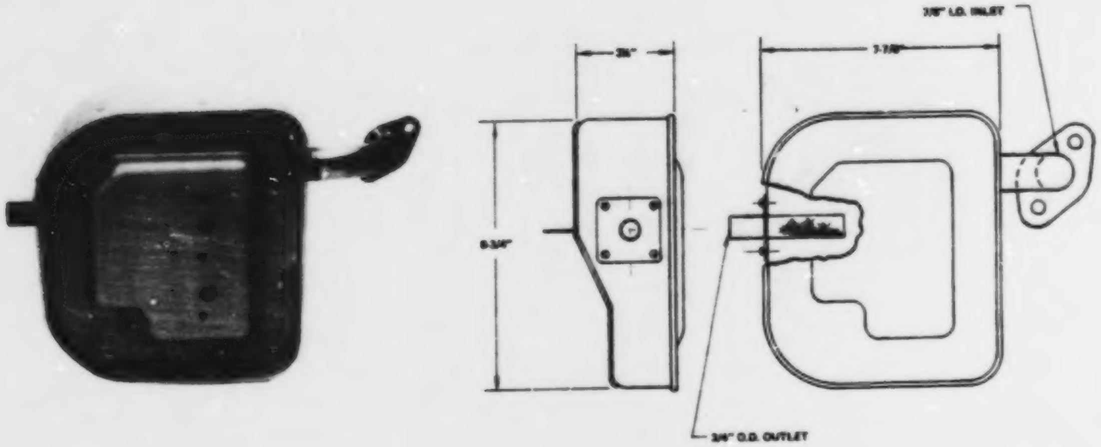

3"
6½"
¾" OD OUTLET
¾" ID INLET
6½"
1⅜"
MOUNTING HOLE

3951/2



6 1/2
1 MOUNTING HOLE
REMOVABLE OUTLET 5/8" O.D. SCREEN TYPE
6 1/2"
3/4" I.D. INLET

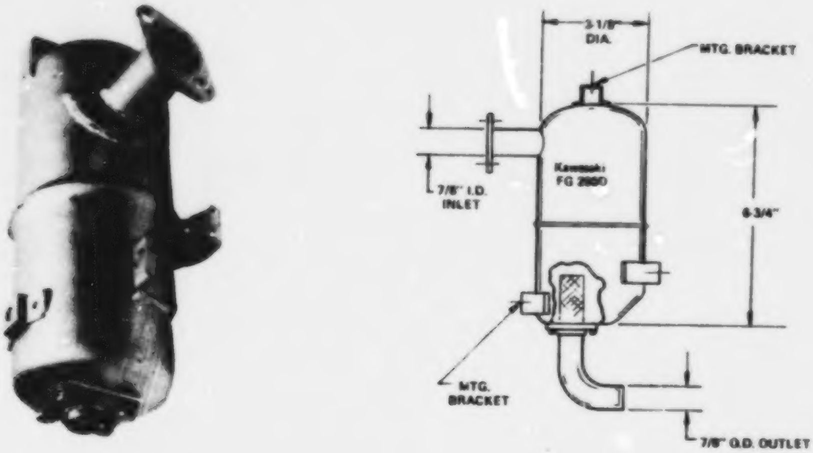
3951/2A

KAWASAKI (Continued)

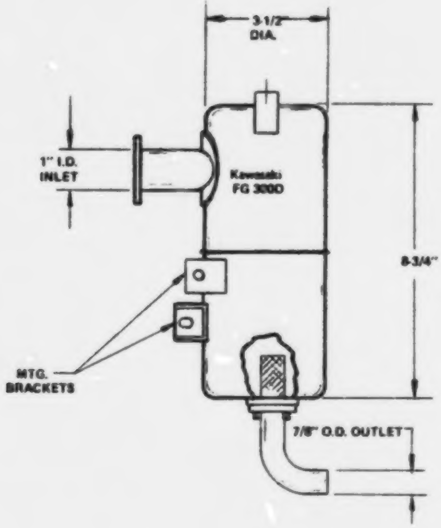

7/8" I.D. INLET
2¾"
7-7/8"
8-3/4"
3/4" O.D. OUTLET

3964/5/6

KAWASAKI (Continued)

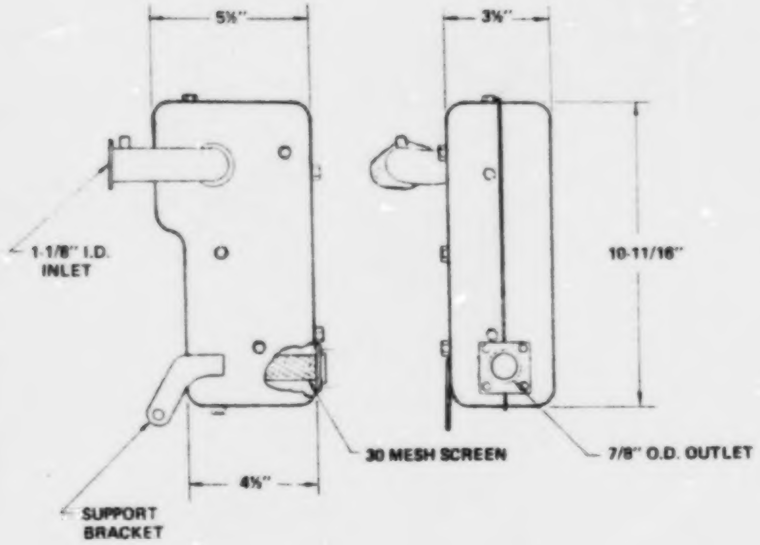

3-1/8"
DIA.
MTG. BRACKET
7/8" I.D.
INLET
Kawasaki
FG 200D
6-3/4"
MTG.
BRACKET
7/8" O.D. OUTLET

FG 200D

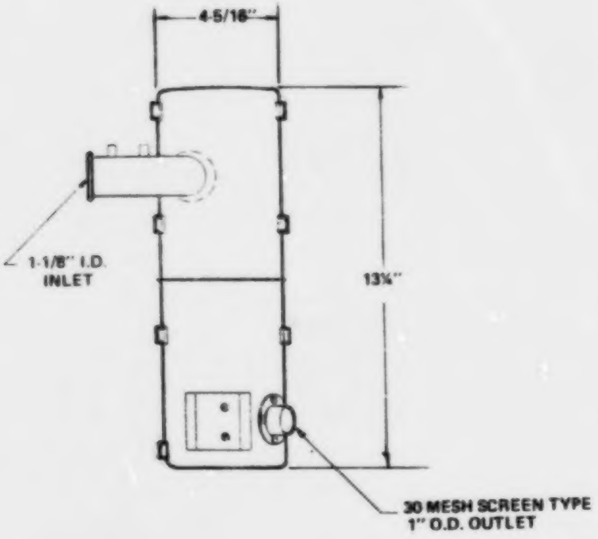

3-1/2"
DIA.
1" I.D.
INLET
Kawasaki
FG 300D
8-3/4"
MTG.
BRACKETS
7/8" O.D. OUTLET

FG 300D

KAWASAKI-KRIZMAN (Continued)


5¼"
3¾"
1-1/8" I.D.
INLET
10-11/16"
30 MESH SCREEN
7/8" O.D. OUTLET
4½"
SUPPORT
BRACKET

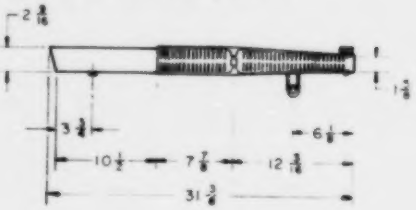
KG-4000


4-5/16"
1-1/8" I.D.
INLET
13¼"
30 MESH SCREEN TYPE
1" O.D. OUTLET

KG-5000

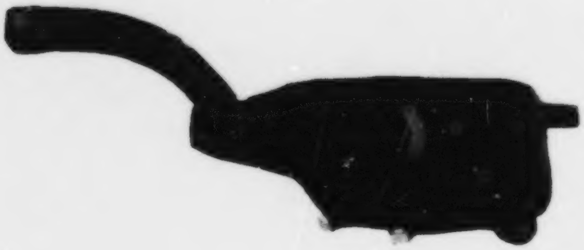
KAWASAKI-KRIZMAN – AMERICAN KAWASAKI MOTORCYCLES CO., LTD.

YS-80

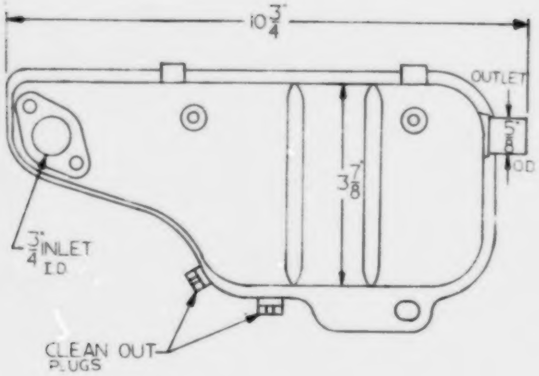


2 3/16
1 3/8
3 3/4
6 1/8
10 1/2
7 7/8
12 3/16
31 3/8

YS-80



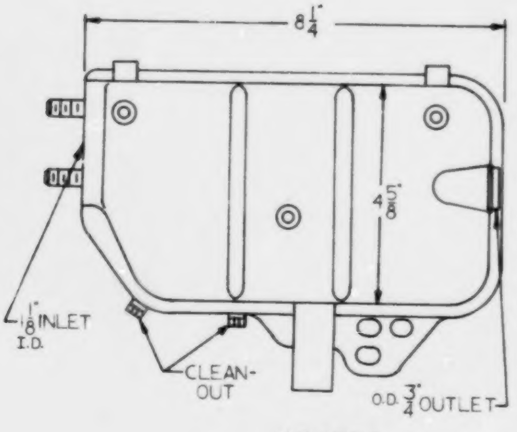
KG-250



10 3/4"
OUTLET
5/8"
O.D.
3 7/8"
3/4" INLET I.D.
CLEAN OUT PLUGS

KG-250

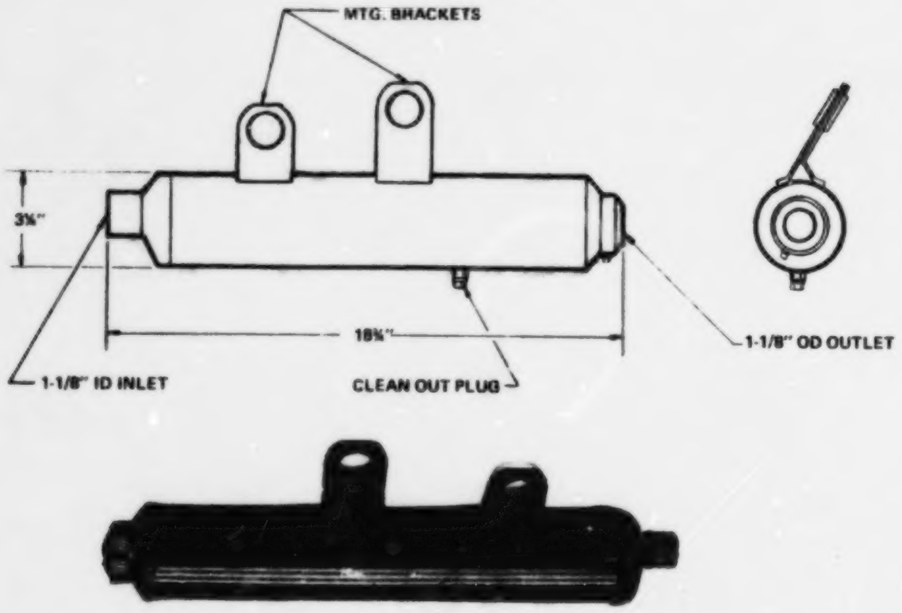
KG-250A



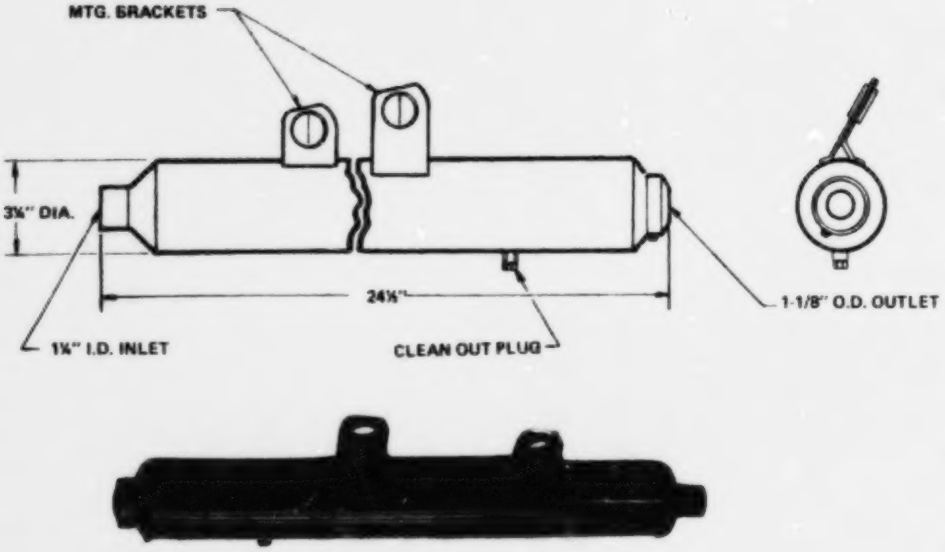
8 1/4"
4 5/8"
1 1/8" INLET I.D.
CLEAN-OUT
O.D. 3/4" OUTLET

KG-250A

KAWASAKI-KRIZMAN (Continued)

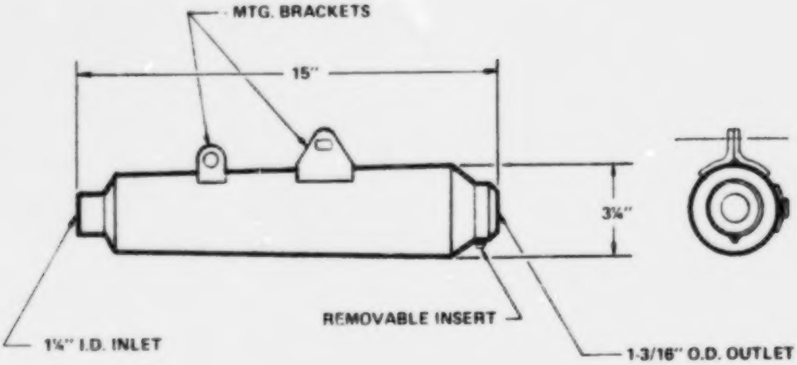

MTG. BRACKETS
3¼"
18¾"
1-1/8" OD OUTLET
1-1/8" ID INLET
CLEAN OUT PLUG

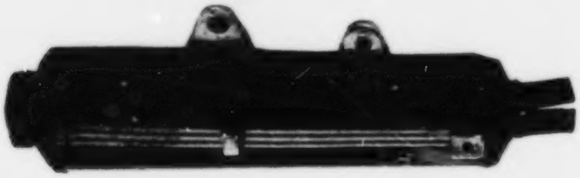
DX-200


MTG. BRACKETS
3¼" DIA.
24½"
1-1/8" O.D. OUTLET
1¼" I.D. INLET
CLEAN OUT PLUG

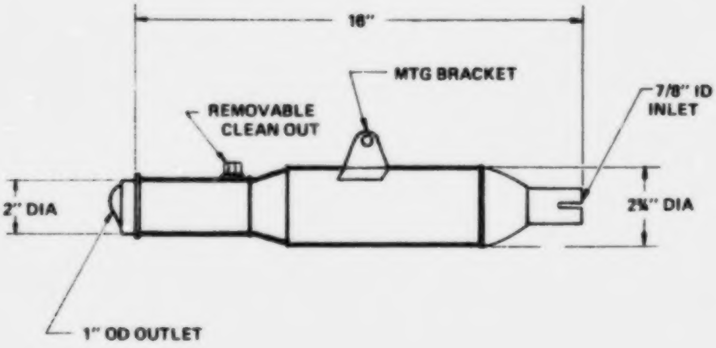
DX-250

KAWASAKI-KRIZMAN (Continued)


MTG. BRACKETS
15"
3¼"
1¼" I.D. INLET
REMOVABLE INSERT
1-3/16" O.D. OUTLET

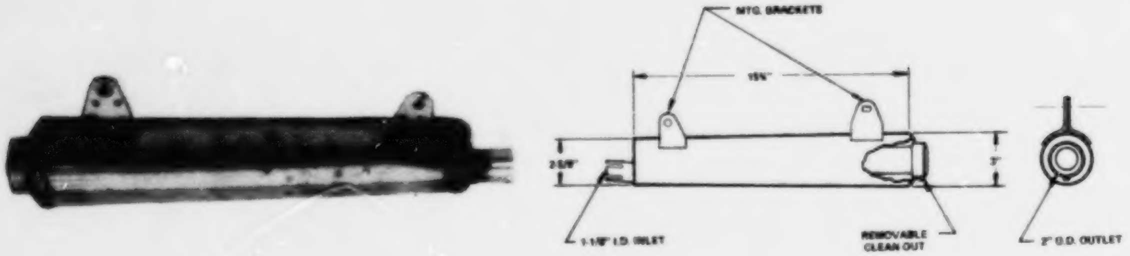


KL-250C

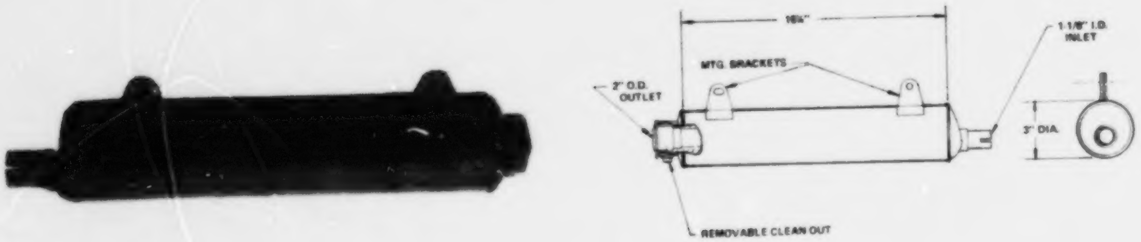

16"
MTG BRACKET
REMOVABLE CLEAN OUT
7/8" ID INLET
2" DIA
2¾" DIA
1" OD OUTLET

KS-500 KDX 175

KAWASAKI-KRIZMAN (Continued)

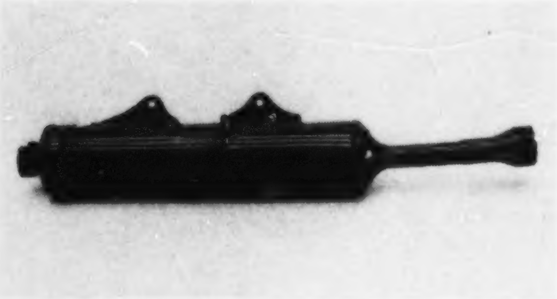

MTG. BRACKETS
15¾"
2-5/8"
3"
1-1/8" I.D. INLET
REMOVABLE CLEAN OUT
2" O.D. OUTLET

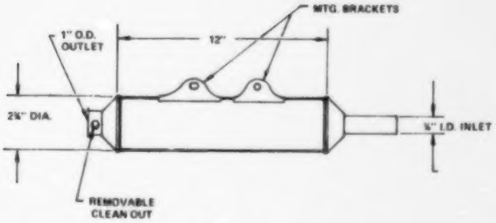
LT 200A


16¼"
1-1/8" I.D. INLET
MTG. BRACKETS
2" O.D. OUTLET
3" DIA.
REMOVABLE CLEAN OUT

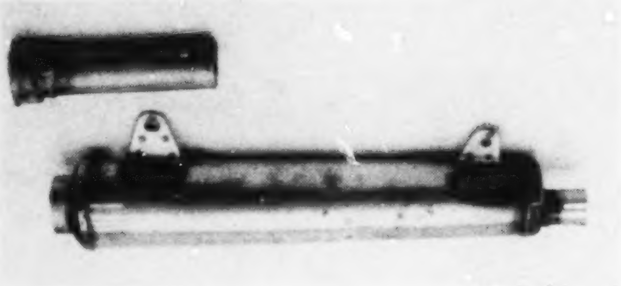
LT 250A

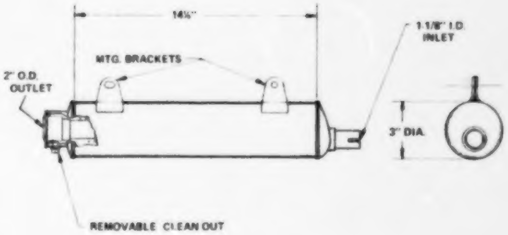
KAWASAKI-KRIZMAN (Continued)



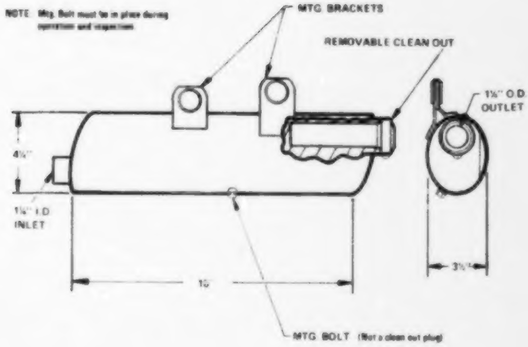

MTG. BRACKETS
1" O.D. OUTLET
12"
2¾" DIA.
¾" I.D. INLET
REMOVABLE CLEAN OUT

KS-350 KHI DX080C




14½"
1-1/8" I.D. INLET
MTG. BRACKETS
2" O.D. OUTLET
3" DIA.
REMOVABLE CLEAN OUT

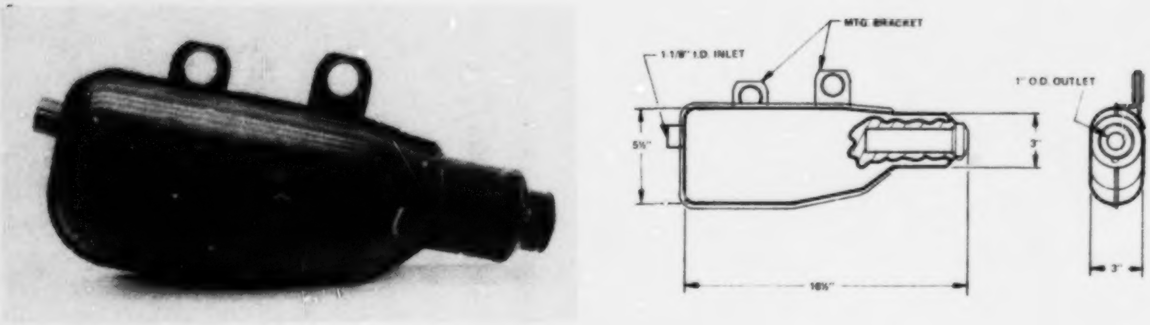
KS-500 KHI LT110A
KS-500 KHI LT160


NOTE Mtg. Bolt must be in place during operation and inspection.
MTG BRACKETS
REMOVABLE CLEAN OUT
1¼" O.D. OUTLET
4½"
1¼" I.D INLET
10"
3½"
MTG BOLT (Not a clean out plug)

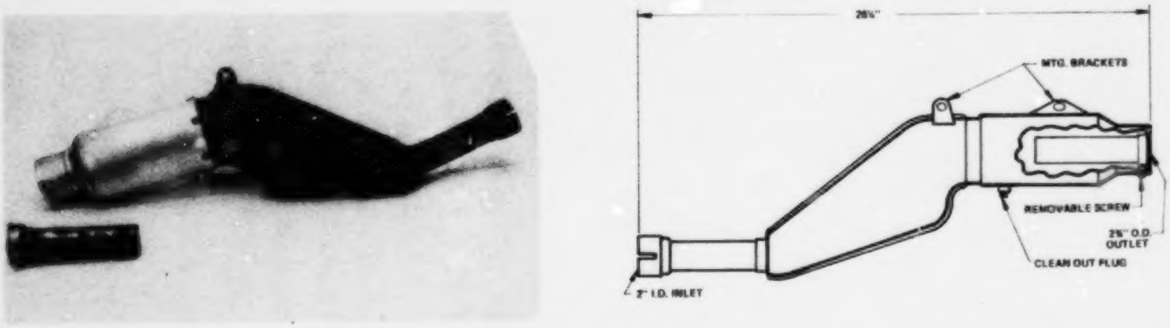
KS-500 KHI DX200A

KS-500 KHI LT200A

KAWASAKI-KRIZMAN (Continued)

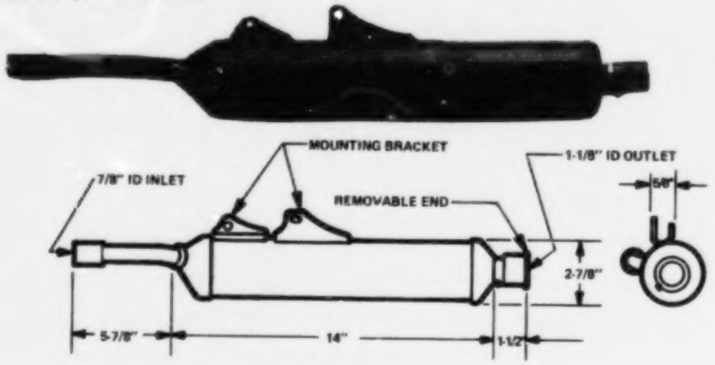

MTG. BRACKET
1-1/8" I.D. INLET
1" O.D. OUTLET
5½"
3"
16½"
3"

KS-500 KHI XT250

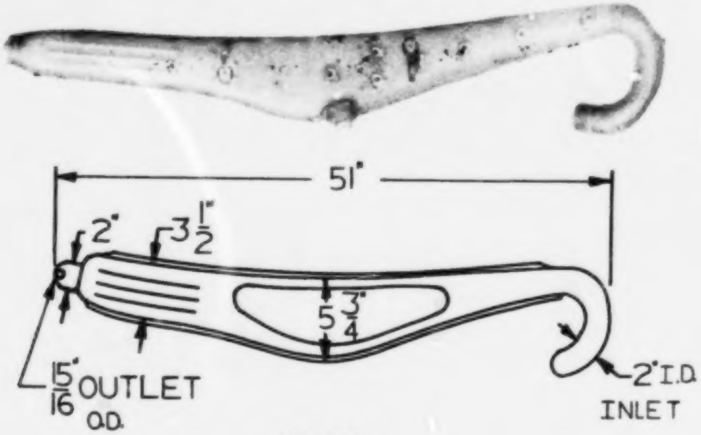

28¾"
MTG. BRACKETS
REMOVABLE SCREW
2⅜" O.D. OUTLET
CLEAN OUT PLUG
2" I.D. INLET

KS-500 KHI KL600

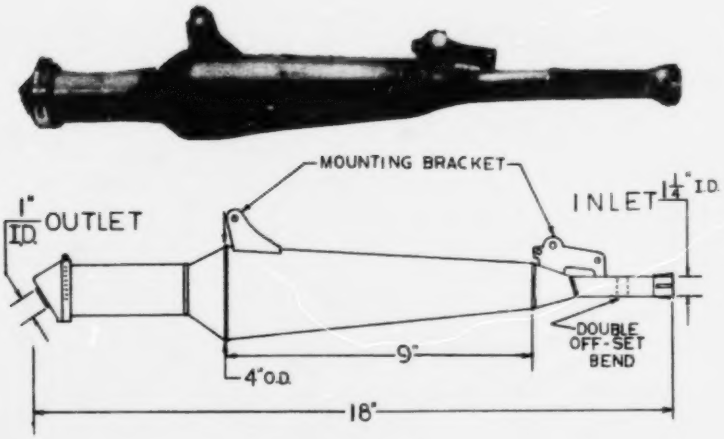
KAWASAKI-KRIZMAN (Continued)


MOUNTING BRACKET
1-1/8" ID OUTLET
7/8" ID INLET
5/8"
REMOVABLE END
2-7/8"
5-7/8"
14"
1-1/2

KS-350-KHIDX080A

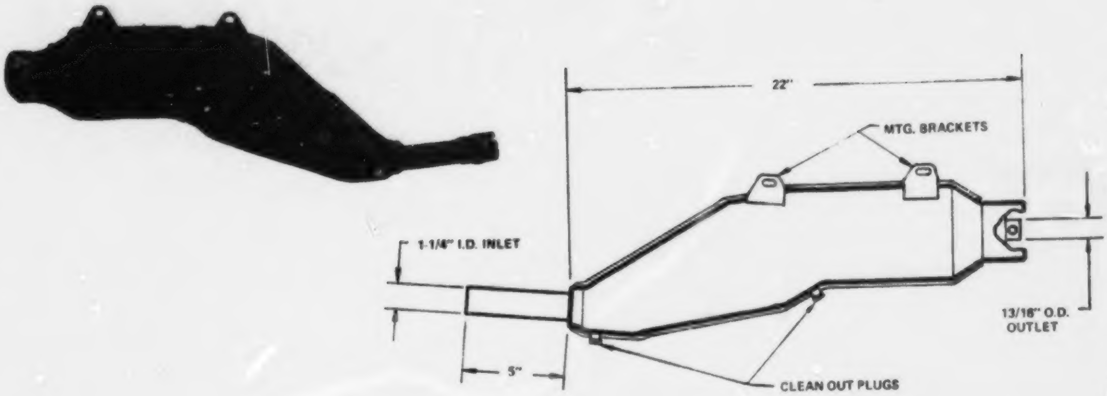

51"
2"
3 1/2"
5 3/4"
15/16" OUTLET O.D.
2" I.D. INLET

KD-400

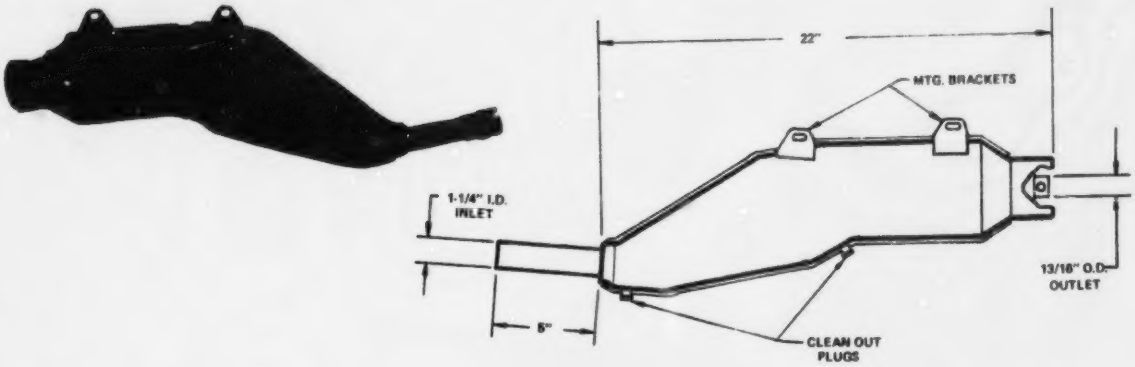

MOUNTING BRACKET
INLET 1 1/4" I.D.
1" I.D. OUTLET
DOUBLE OFF-SET BEND
9"
4" O.D.
18"

KH1-KE250B

KAWASAKI-KRIZMAN (Continued)


22"
MTG. BRACKETS
1-1/4" I.D. INLET
13/16" O.D. OUTLET
5"
CLEAN OUT PLUGS

KHI KL250


22"
MTG. BRACKETS
1-1/4" I.D. INLET
13/16" O.D. OUTLET
5"
CLEAN OUT PLUGS

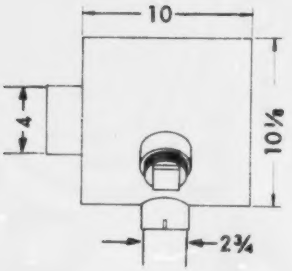
KHI-KL6

KERN COUNTY FIRE DEPARTMENT

K.C.F.D. 1 – SEE CEDCO NO. 1 (p. 25)

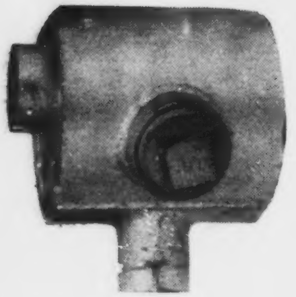
KITTELL – KITTELL MUFFLER & ENGINEERING

1010 HT

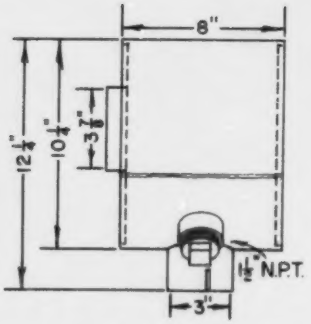


1010 HT

KITTEL (Continued)

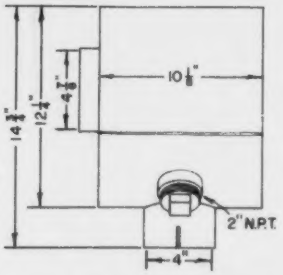


S


8"
12¼"
10¼"
3⅞"
1½" N.P.T.
3"

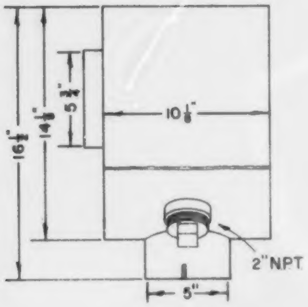
ALSO AVAILABLE WITH
3" FEMALE PIPE INLET

S3


14¾"
12¼"
4⅞"
10⅛"
2" N.P.T.
4"

ALSO AVAILABLE WITH
4" FEMALE THREADED
PIPE INLET

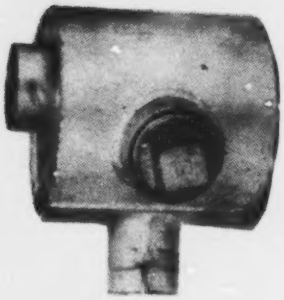
S4


16¼"
14⅛"
5¾"
10⅛"
2" N.P.T.
5"

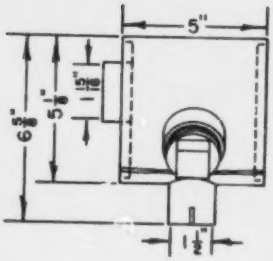
ALSO AVAILABLE WITH
5" FEMALE THREADED
PIPE INLET

S5

KITTELL (Continued)

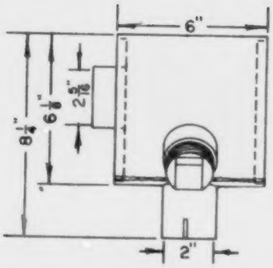


SA



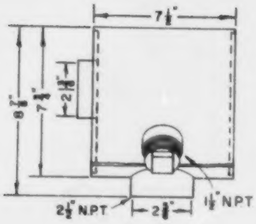
5"
6 5/8"
5 1/8"
1 15/16"
1 1/2"

S1-1/2A



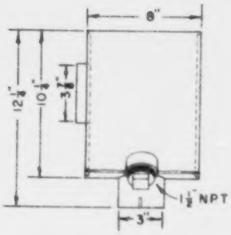
6"
8 1/4"
6 1/8"
2 5/16"
2"

S2A



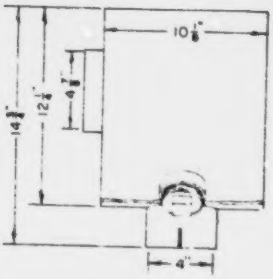
7 1/8"
8 7/8"
7 1/8"
2 1/16"
2 1/2" NPT
2 3/8"
1 1/2" NPT

S2-1/2A



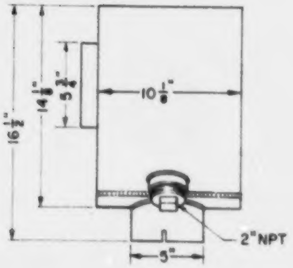
8"
12 1/4"
10 1/4"
3 7/8"
1 1/2" NPT
3"

S3A



10 1/8"
14 3/8"
12 1/4"
4 7/8"
4"

S4A

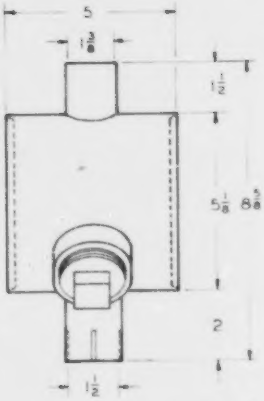


16 1/2"
14 1/8"
5 1/4"
10 1/8"
2" NPT
5"

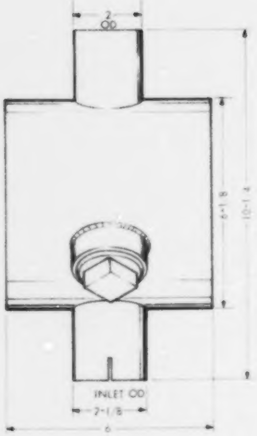
S5A

KITTELL (Continued)

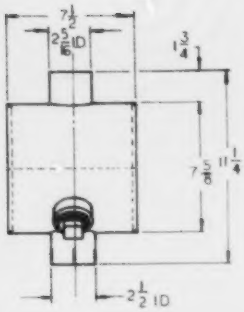
S-T-1


5
1 3/8
1 1/2
5 1/8
8 5/8
2
1 1/2

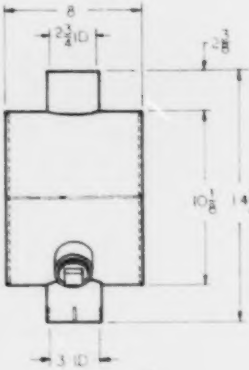
ST-1-1/2


2
OD
6-1/8
10-1/4
INLET OD
2-1/8
6

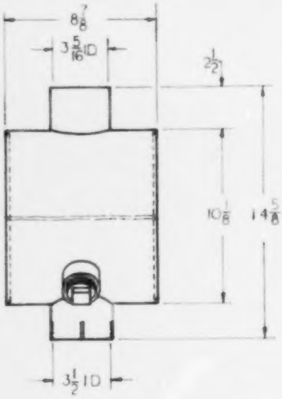
S-T-2


7 1/2
2 5/16 ID
1 3/4
7 5/8
11 1/4
2 1/2 ID

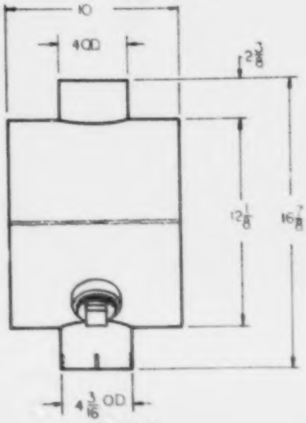
S-T-2-1/2


8
2 3/4 ID
2 3/8
10 1/8
14 3/4
3 ID

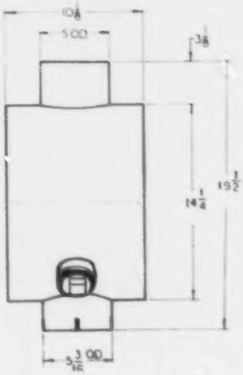
S-T-3


8 7/8
3 5/16 ID
2 1/2
10 1/8
14 5/8
3 1/2 ID

S-T-3-1/2

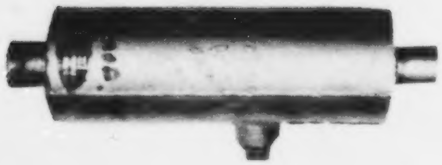

10
4 OD
2 3/8
12 1/8
16 7/8
4 3/16 OD

S-T-4

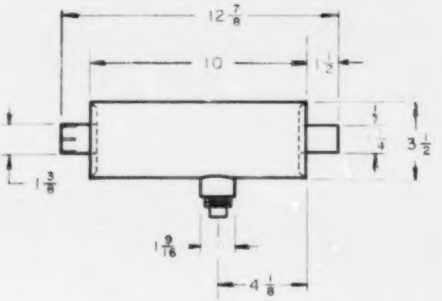

10 1/8
5 OD
3 1/8
14 1/4
19 1/2
5 3/16 OD

S-T-5

KITTELL (Continued)

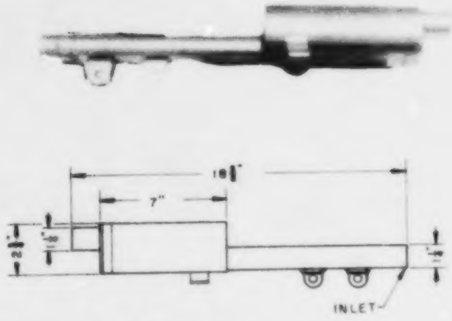


3510-SA 1¼

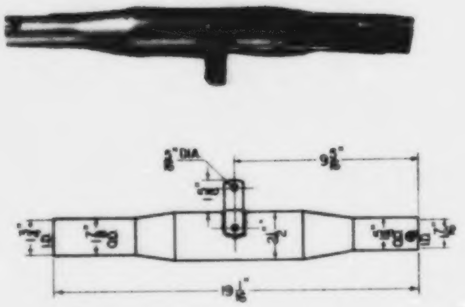

12 7/8
10
1 1/2
3 1/2
1 3/8
1 9/16
4 1/8

3510-SA 1¼

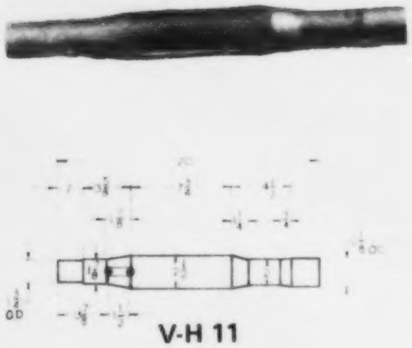
KRIZMAN ENGINEERING & SALES CO.


18 3/4"
7"
INLET

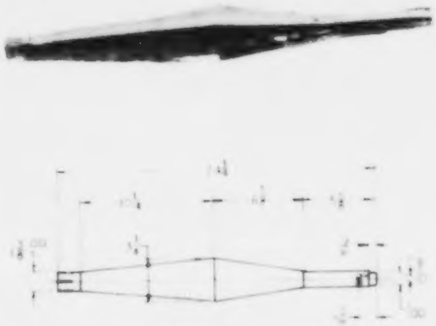
II-5H.34B


5/8" DIA
9 5/16"
19 1/16"

V-H1

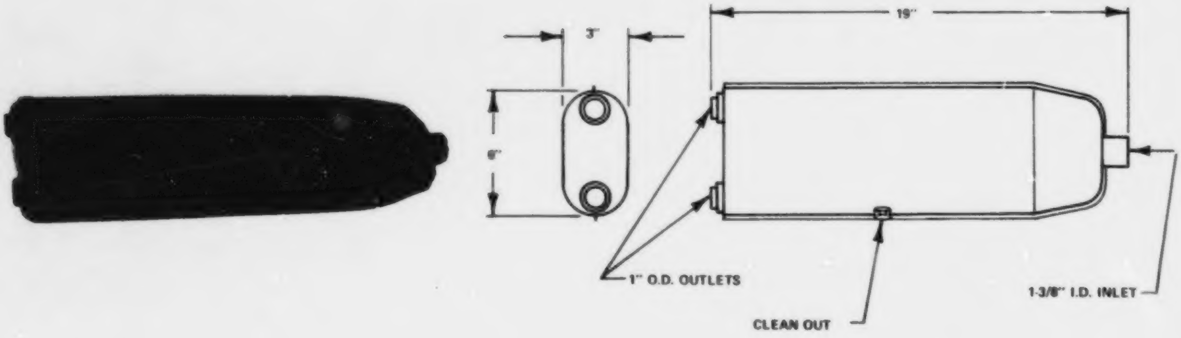


V-H 11



T-H100

KRIZMAN (Continued)


3"
19"
6"
1" O.D. OUTLETS
CLEAN OUT
1-3/8" I.D. INLET

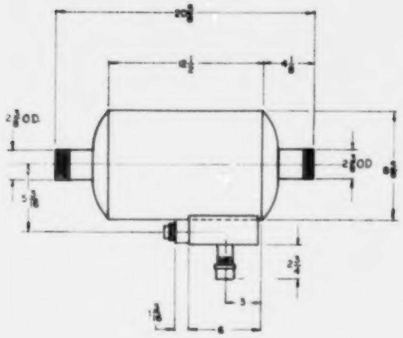
KS-500/250.28.505.01

MAREMONT – MAREMONT AUTOMOTIVE PRODUCTS

FOR MAREMONT 4305 – SEE DONALDSON FCM 06-0037 (p. 31)
" " 4306 – " " " 06-5030 (p. 31)
" " 4307 – " " " 07-0068 (p. 31)
" " 4308 – " " " 07-0069 (p. 31)
" " 4604 – " " " 08-0024 (p. 31)
" " 4605 – " " " 09-0091 (p. 32)

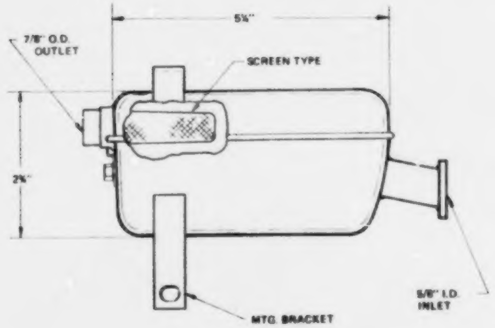
MAXIM – AMF BEAIRD, INC.

2" MSA1


20 3/8
12 1/2
4 1/8
2 3/8 OD
2 3/8 OD
5 3/16
8 5/8
2 3/4
3
1 3/16
6

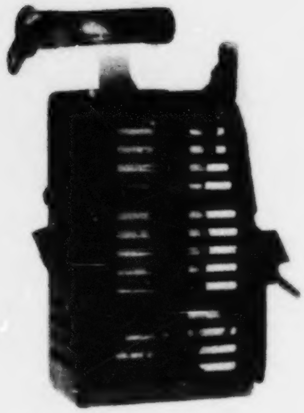
2" MSA1

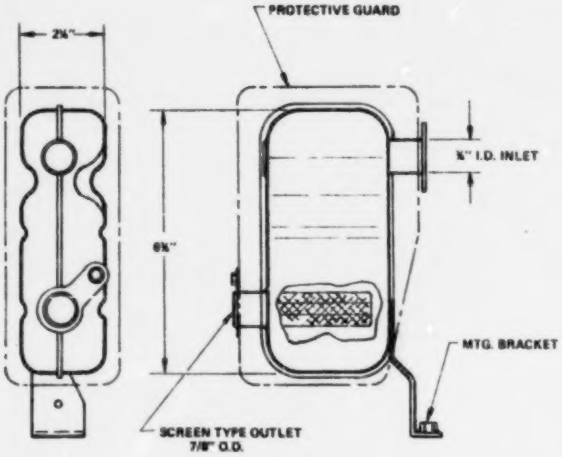
McCULLOCH



7/8" O.D. OUTLET
5¾"
SCREEN TYPE
2¾"
5/8" I.D. INLET
MTG. BRACKET

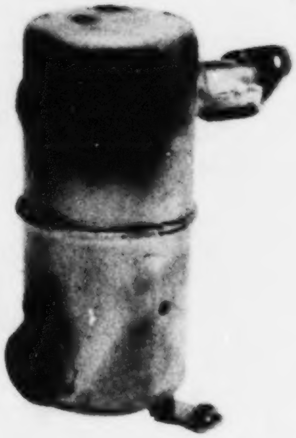
MMP 600E/800E

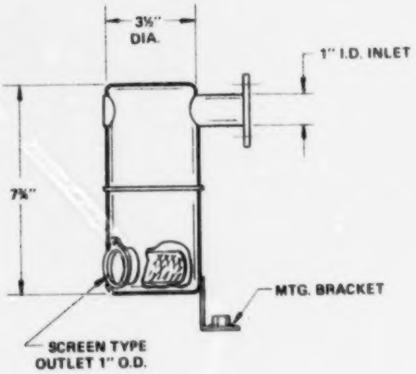




PROTECTIVE GUARD
2¼"
¾" I.D. INLET
6⅞"
MTG. BRACKET
SCREEN TYPE OUTLET 7/8" O.D.

MMP 1500E

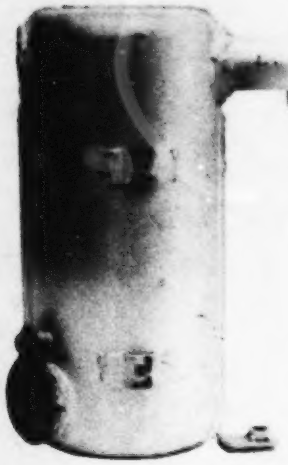


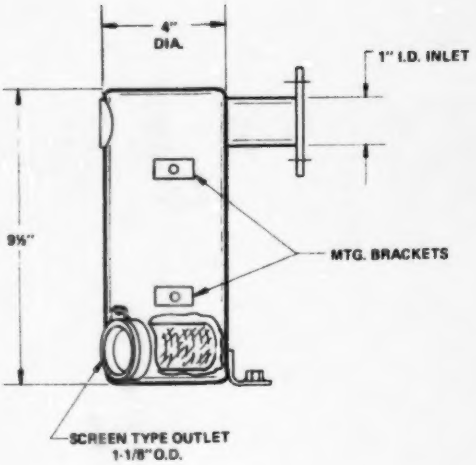


3½" DIA.
1" I.D. INLET
7¾"
MTG. BRACKET
SCREEN TYPE OUTLET 1" O.D.

MMP 2300E

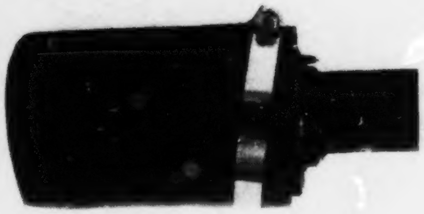
McCULLOCH (Continued)



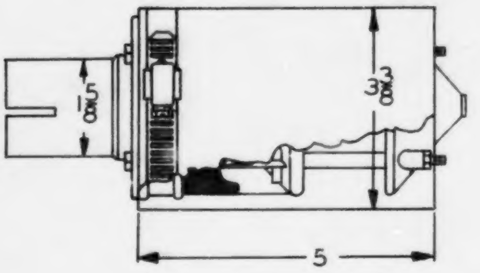

4"
DIA.
1" I.D. INLET
9½"
MTG. BRACKETS
SCREEN TYPE OUTLET
1-1/8" O.D.

MPP 3500E

MURPHY MUFFLER



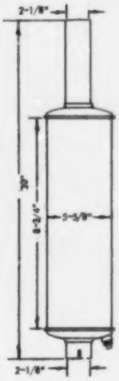
MM 3^S 2.5



MM 3^S 2.5

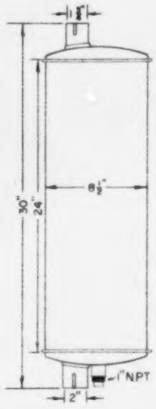
NELSON — NELSON MUFFLER COMPANY

T-6277

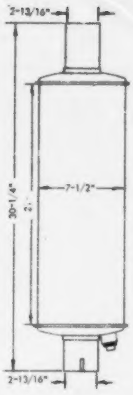

2-1/8"
30"
8-3/4"
5-5/8"
2-1/8"

T-6277

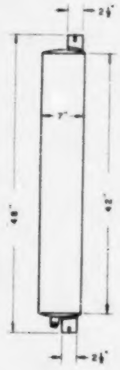
T-7033


1 3/8"
30"
24"
8 1/2"
1" NPT
2"

T-7033

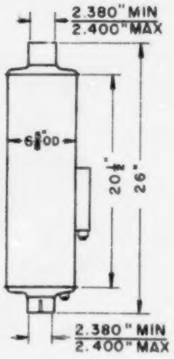

2-13/16"
30-1/4"
7-1/2"
2-13/16"

T-7359


2 1/8"
48"
7"
42"
2 1/8"

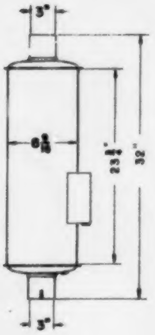
T-7515

T-8680


2.380" MIN
2.400" MAX
6 5/8" OD
20 1/2"
26"
2.380" MIN
2.400" MAX

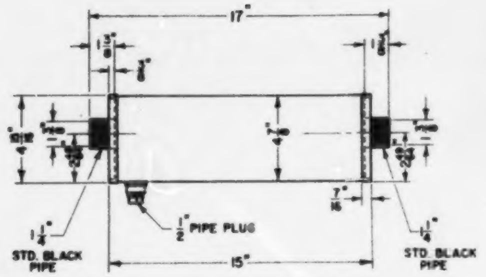
T-8680

NELSON (Continued)

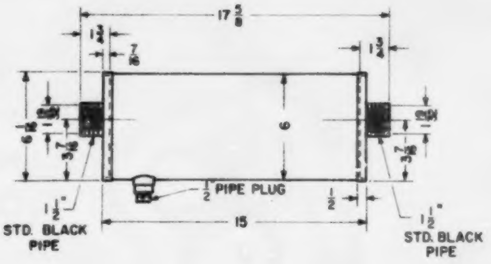

3"
$6\frac{9}{16}$
$23\frac{5}{8}$"
32"
3"

T-8714

T-9098

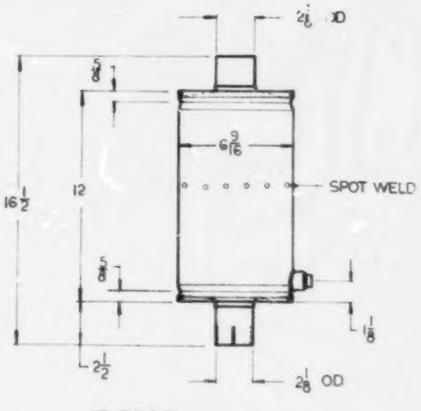

17"
$1\frac{3}{8}$"
$\frac{3}{8}$"
$1\frac{3}{8}$"
$\frac{7}{16}$"
$1\frac{1}{4}$"
STD. BLACK PIPE
$\frac{1}{2}$" PIPE PLUG
15"
$1\frac{1}{4}$"
STD. BLACK PIPE

T-9098


$17\frac{5}{8}$
$1\frac{3}{4}$
$\frac{7}{16}$
$1\frac{3}{4}$
$6\frac{1}{2}$
6
$3\frac{7}{16}$
$3\frac{7}{16}$
$\frac{1}{2}$ PIPE PLUG
$\frac{1}{2}$
$1\frac{1}{2}$"
STD. BLACK PIPE
15
$1\frac{1}{2}$"
STD. BLACK PIPE

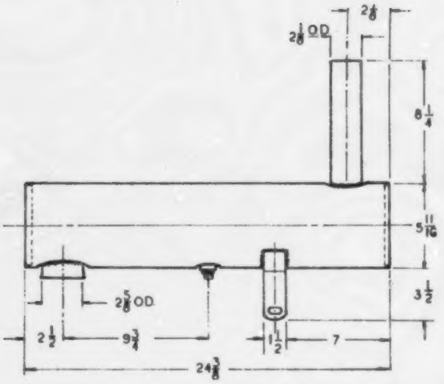
T-9099

T-9213

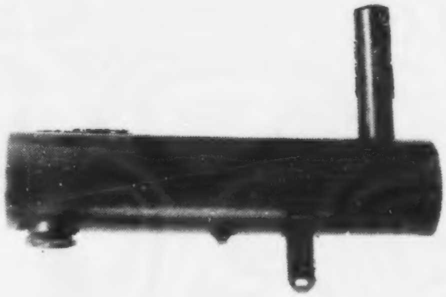

$2\frac{1}{8}$ OD
$\frac{5}{8}$
$6\frac{9}{16}$
$16\frac{1}{2}$
12
SPOT WELD
$\frac{5}{8}$
$1\frac{1}{8}$
$2\frac{1}{2}$
$2\frac{1}{8}$ OD

T-9213

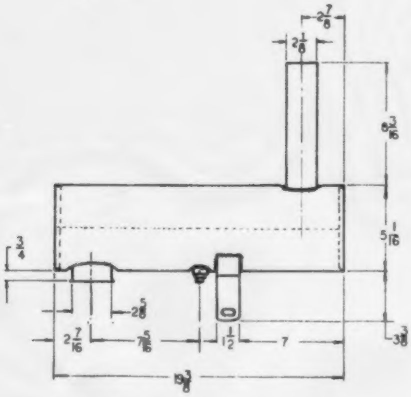
NELSON (Continued)


2 1/8
2 1/8 OD
8 1/4
5 11/16
3 1/2
2 5/8 OD
2 1/2
9 3/4
1 1/2
7
24 3/8

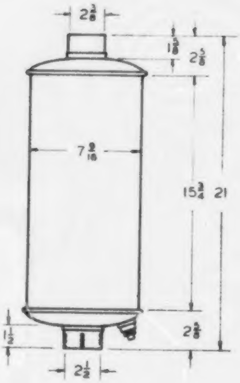
T-9219



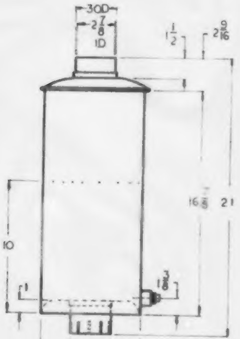
T-9220


2 7/8
2 1/8
8 3/16
5 1/16
3/4
2 5/8
2 7/16
7 5/16
1 1/2
7
3 3/8
19 3/8

T-9220

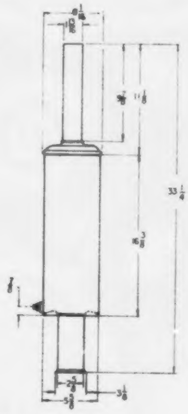

2 3/8
1 5/8
2 5/8
7 9/16
15 3/4
21
1 1/2
2 5/8
2 1/2

T-9304


3 OD
2 7/8 ID
1 1/2
2 9/16
10
16 7/8
21
1
1 3/8
3 OD
7 9/16

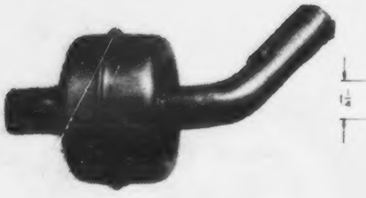
T-9356

T-9370

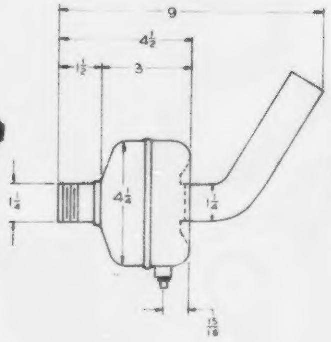

6 1/16
1 15/16
9 7/8
11 1/8
33 1/4
16 3/8
7/8
2 5/8
3 1/8
5 5/8

T-9370

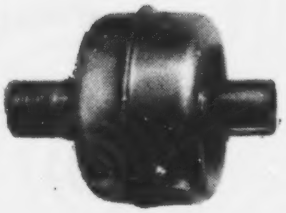
NELSON (Continued)



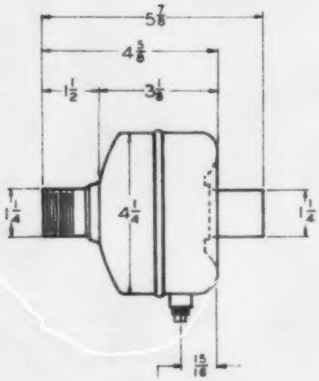
T-9457


9
4½
1½
3
1¼
4¼
1¼
15/16

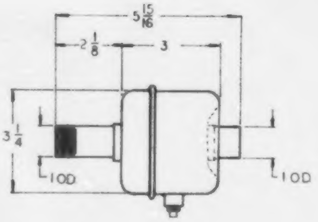
T-9457



T-9458

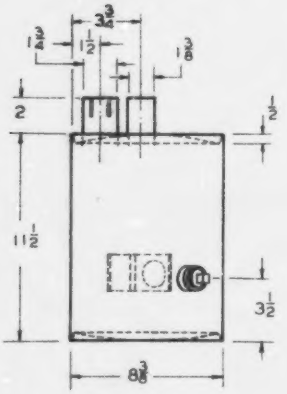

5⅞
4⅝
1½
3⅛
1¼
4¼
1¼
15/16

T-9458

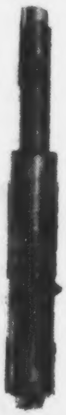

5 15/16
2⅛
3
3¼
1 OD
1 OD

T-9460

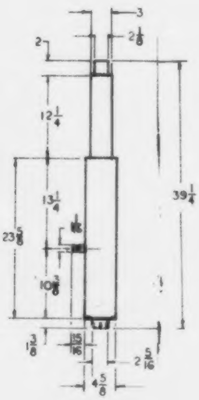
T-9489


3¾
1¾
1½
1⅜
2
½
11½
3½
8⅜

T-9489

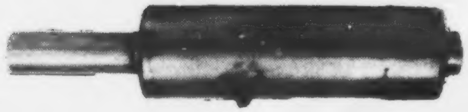


T-9605

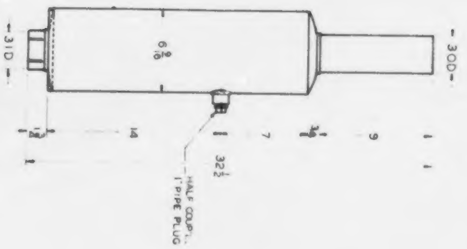

3
2
2⅛
12¼
13¼
39¼
23⅝
10⅜
1⅜
15/16
2 5/16
4⅝

T-9605

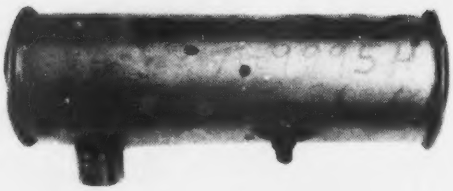
NELSON (Continued)



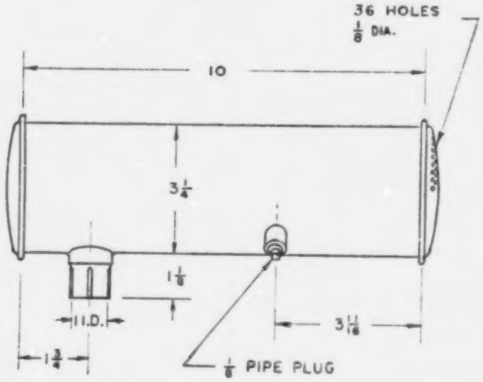
T-9932


3 I.D.
6 9/16
3 O.D.
14
7
9
32 1/2
HALF COUPL.
1" PIPE PLUG

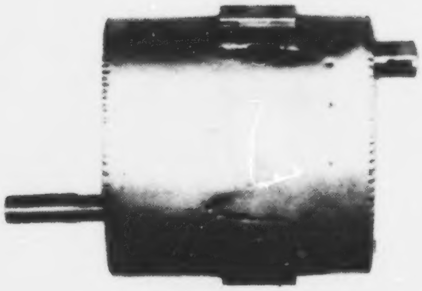
T-9932



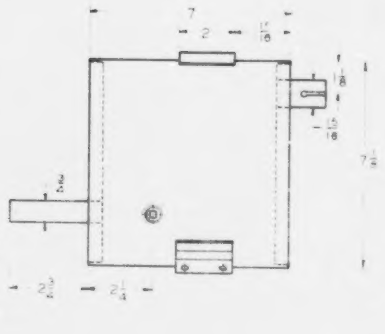
T-9995


36 HOLES
1/8 DIA.
10
3 1/4
1 1/8
1 I.D.
3 11/16
1 3/4
1/8 PIPE PLUG

T-9995

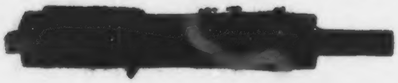


T-10093

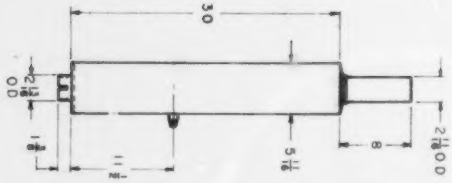

7
2
15/16
1/8
7 1/8
3/4
2 3/4
2 1/4

T-10093

NELSON (Continued)

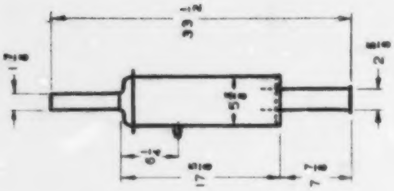


T-10115

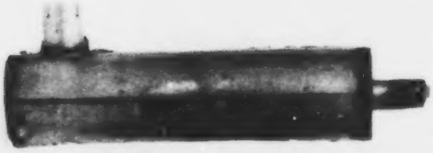


T-10115

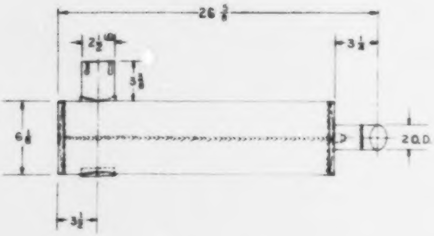
T-10126



T-10126



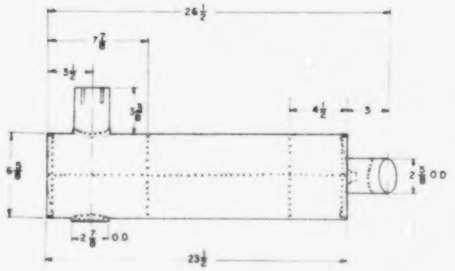
T-10213


26
2 1/2
3 1/2
6
2 O.D

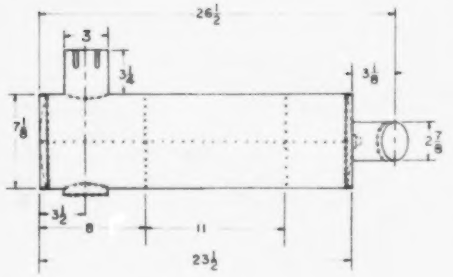
T-10213

NELSON (Continued)

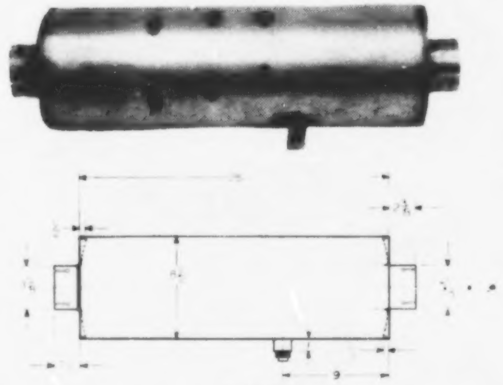
T-10214


26½
7⅞
3½
3⅜
4½
3
6⅝
2⅞ OD
2⅞ OD
23½

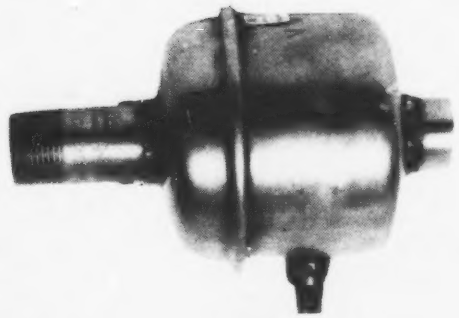
T-10214


26½
3
3¼
3⅛
7⅛
2⅞
3½
8
11
23½

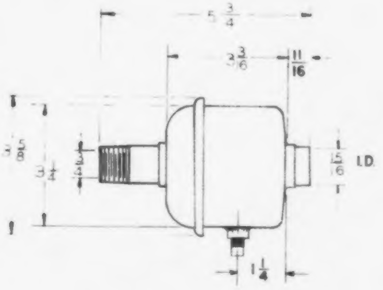
T-10215



T-10244

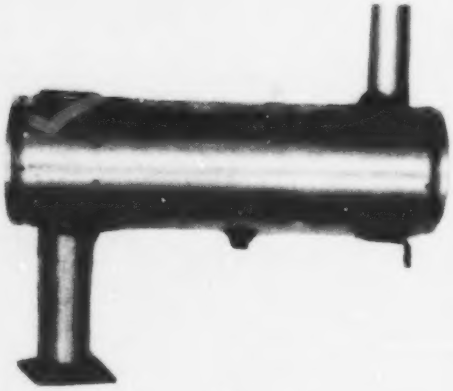


T-10291

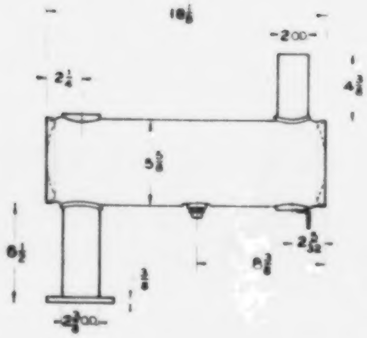

5¾
3⅜
11/16
3⅝
3¼
5/8 I.D.
1¼

T-10291

NELSON (Continued)

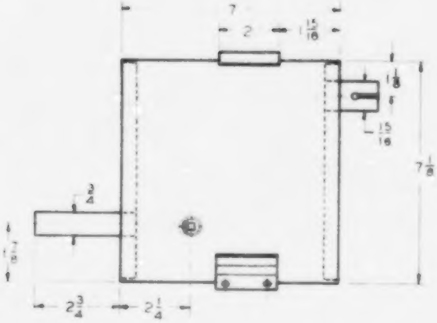


T-10374

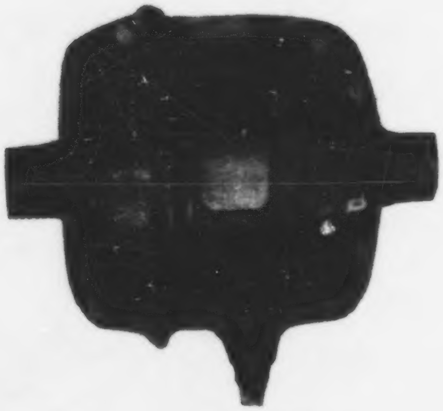

18 1/8
2.00
2 1/4
4 3/8
5 5/8
6 1/2
3/8
6 3/8
2 3/32
2 3/8 OD

T-10374

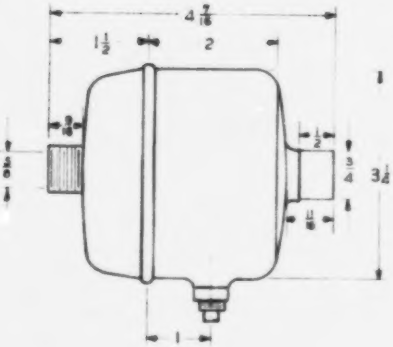
T-10409


7
2
1 15/16
1 1/8
15/16
7 1/8
3/4
7/8
2 3/4
2 1/4

T-10409

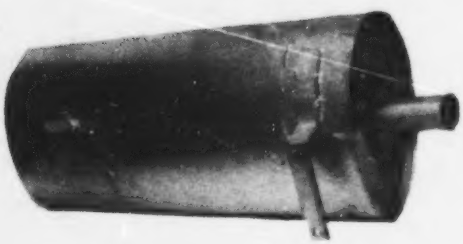


T-10705

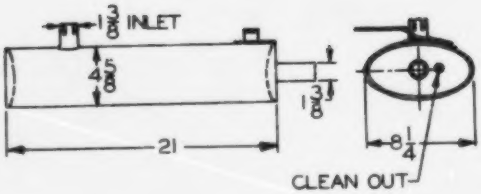

4 7/16
1 1/2
2
3/8
3/8
1/2
3/4
3 1/4
11/16
1

T-10705

NELSON (Continued)

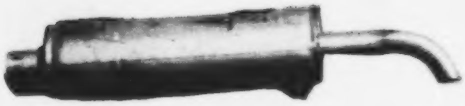


T-10792

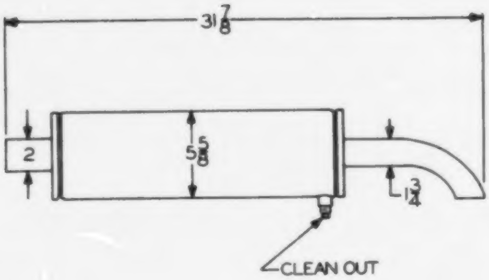


1 3/8 INLET
4 5/8
1 3/8
21
8 1/4
CLEAN OUT

T-10792

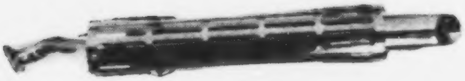


T-10860

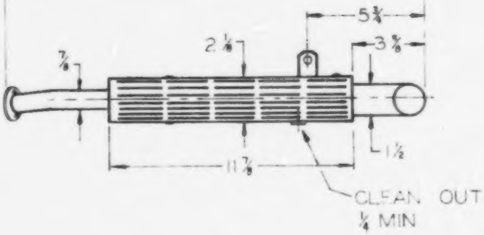


31 7/8
2
5 5/8
1 3/4
CLEAN OUT

T-10860



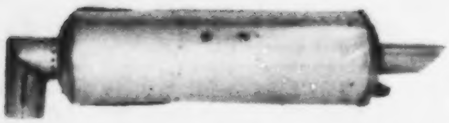
T-10895



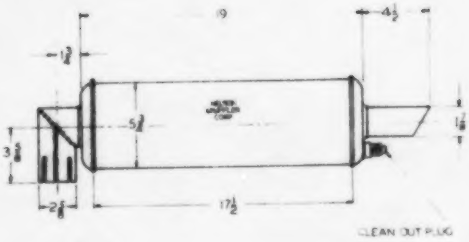
20 1/8
5 3/4
2 1/8
3 5/8
7/8
1 1/2
11 7/8
CLEAN OUT
1/4 MIN

T-10895

NELSON (Continued)

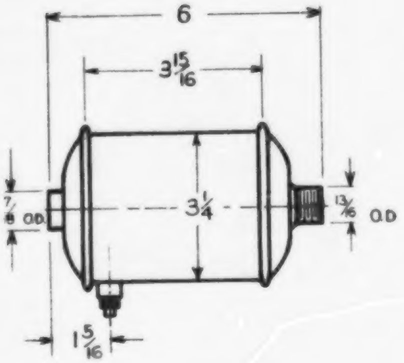


T-10897

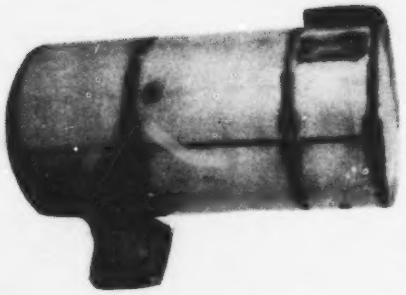

19
4 1/2
1 3/4
5 3/4
1 7/8
3 5/8
2 5/8
17 1/2
CLEAN OUT PLUG

T-10897

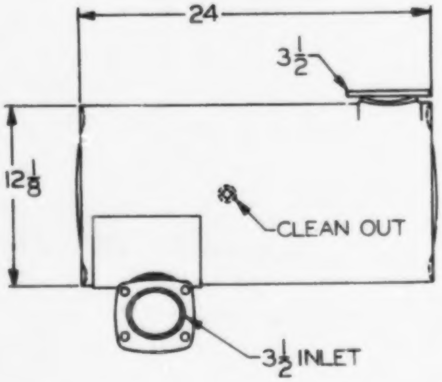
T-10898


6
3 15/16
3 1/4
7/8 OD.
13/16 O.D
1 5/16

T-10898

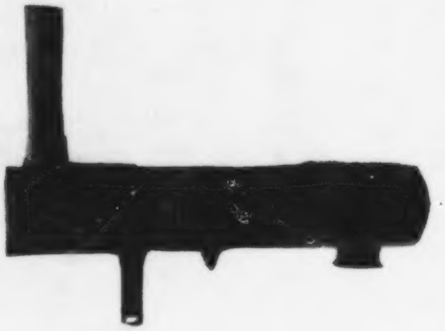


T-10956

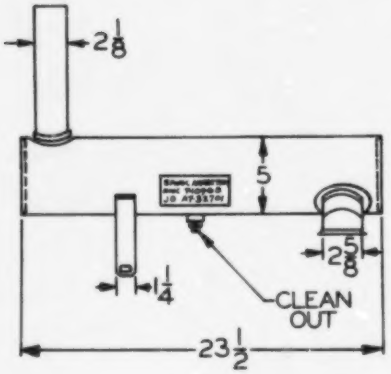

24
3 1/2
12 1/8
CLEAN OUT
3 1/2 INLET

T-10956

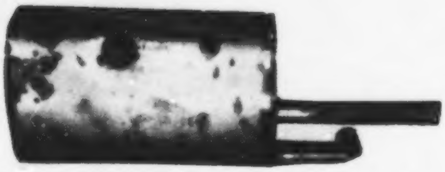
NELSON (Continued)



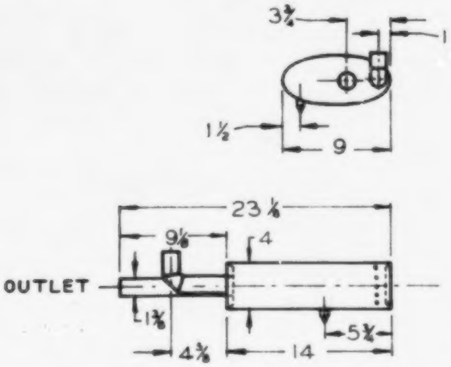
T-10968


2 1/8
5
2 5/8
1 1/4
CLEAN OUT
23 1/2

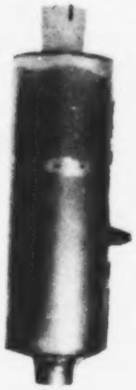
T-10968



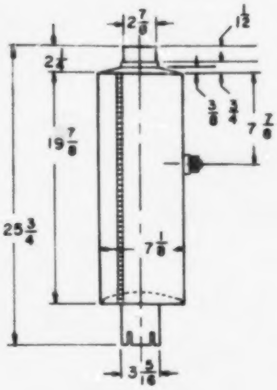
T-11068C


3 3/4
1
1 1/2
9
23 1/8
9 1/8
4
OUTLET
1 3/8
4 3/8
14
5 3/4

T-11068C



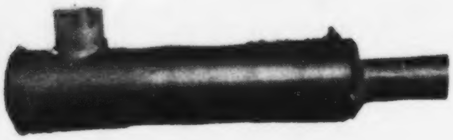
T-11145


2 7/8
1 1/2
2 1/4
3/8
3/4
7 7/8
19 7/8
25 3/4
7 1/8
3 5/16

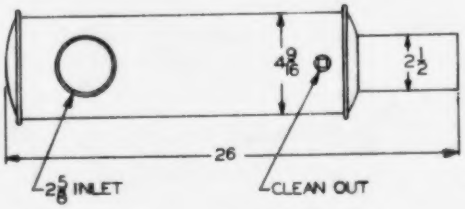
T-11145

FOR T-11159 SEE T-11068C

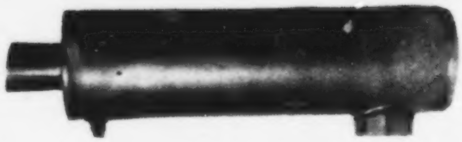
NELSON (Continued)



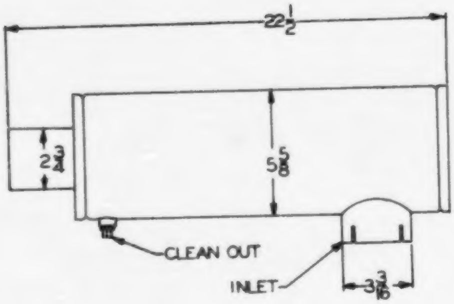
T-11336


4 9/16
2 1/2
26
2 5/8 INLET
CLEAN OUT

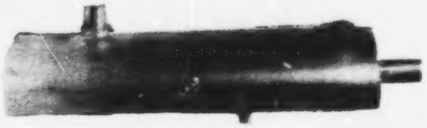
T-11336



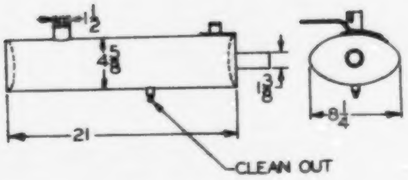
T-11337


22 1/2
2 3/4
5 5/8
CLEAN OUT
INLET
3 3/16

T-11337



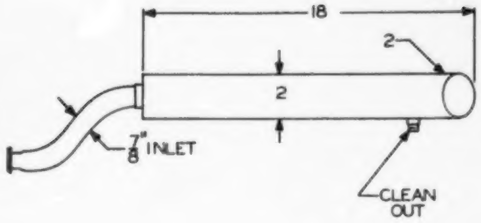
T-11424


1 1/2
4 5/8
1 3/8
8 1/4
21
CLEAN OUT

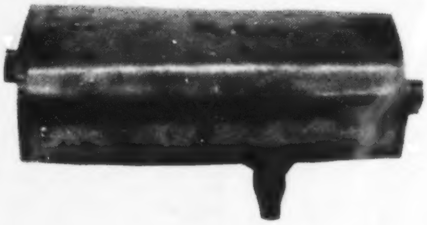
T-11424

NELSON (Continued)

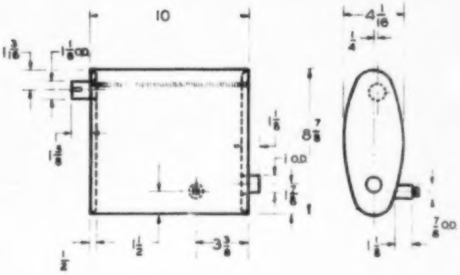
T-11601C


18
2
2
7/8" INLET
CLEAN OUT

T-11601C

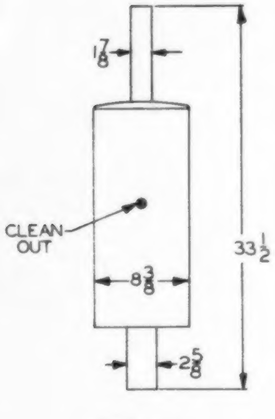


T-11606


10
1 3/16
1 1/8 O.D.
1 3/8
1 1/8
8 7/8
1 O.D.
1 7/8
1/2
1 1/2
3 3/8
4 1/16
1/4
7/8 O.D.
1 1/8

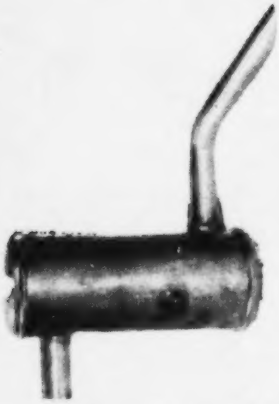
T-11606

T-11668

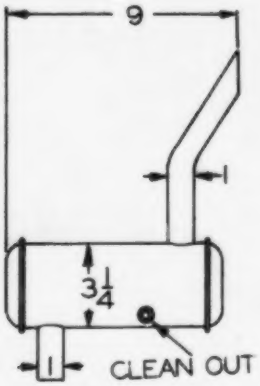

1 7/8
CLEAN OUT
8 3/8
33 1/2
2 5/8

T-11668

NELSON (Continued)

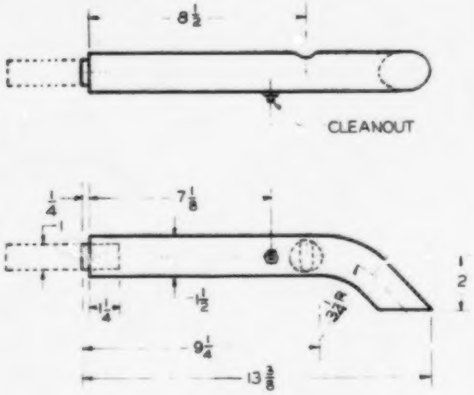


T-11708 (P/NT 11892)


9
3 1/4
1
1
CLEAN OUT

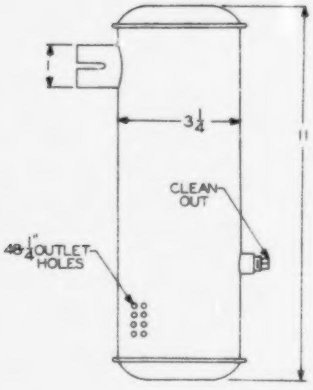
T-11708 (P/NT 11892)

T-11730H

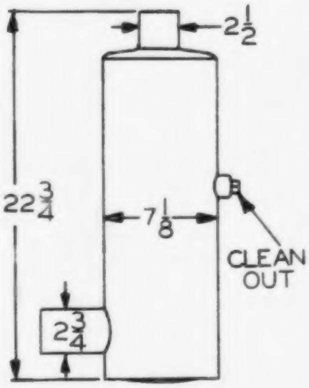

8 1/2
CLEANOUT
1/4
7 1/8
1
1 1/4
1 1/2
1 3/4 R
2
9 1/4
13 3/8

T-11730H

T-11915


3 1/4
11
CLEAN-OUT
48-1/4" OUTLET-HOLES

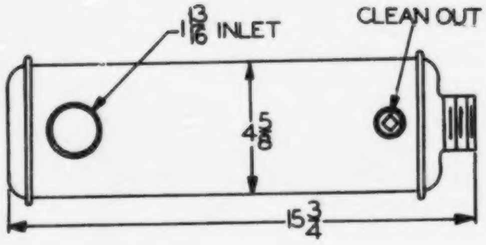
T-11915


2 1/2
22 3/4
7 1/8
2 3/4
CLEAN OUT

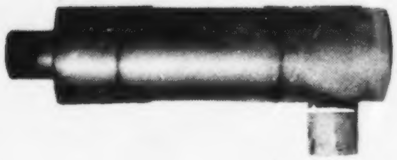
T-11927

NELSON (Continued)

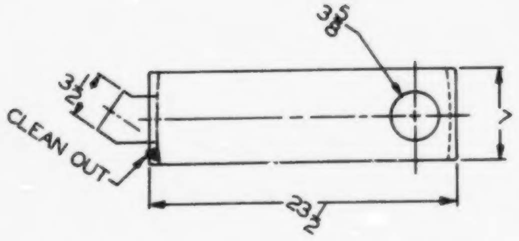
T-11976


1 13/16 INLET
CLEAN OUT
4 5/8
15 3/4

T-11976



T-12499

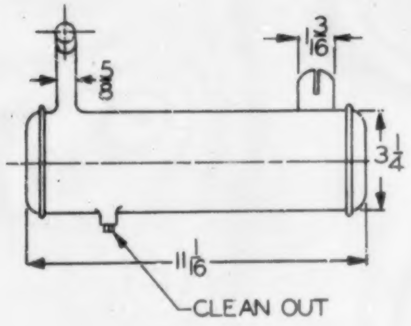

3 5/8
3 1/2
CLEAN OUT
7
23 1/2

T-12499

SEE T-12502 SEE T-10115

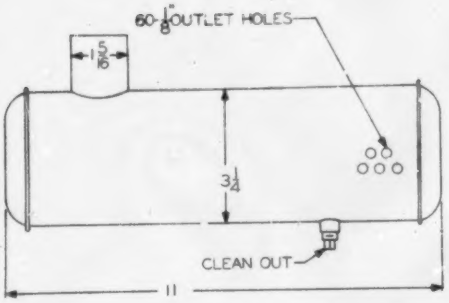
NELSON (Continued)

T-12760B

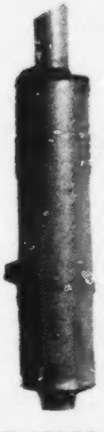

1 3/16
5/8
3 1/4
11 1/16
CLEAN OUT

T-12760B

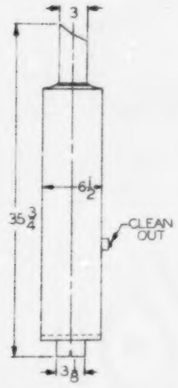
T-12761


60-1/8" OUTLET HOLES
1 5/16
3 1/4
CLEAN OUT
11

T-12761



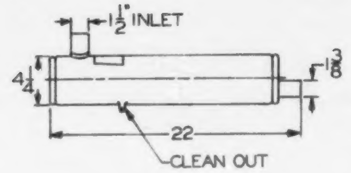
T-12818


3
6 1/2
35 3/4
CLEAN OUT
3 1/8

T-12818

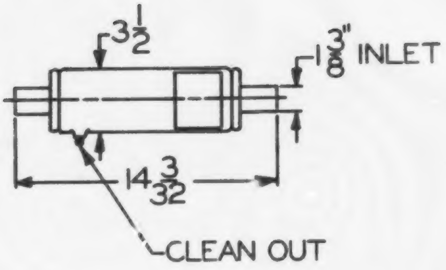
NELSON (Continued)

T-12825F


1½" INLET
4¼
1⅜
22
CLEAN OUT

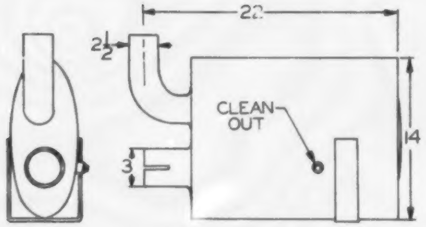
T-12825F

T-12863


3½
1⅜" INLET
14 3/32
CLEAN OUT

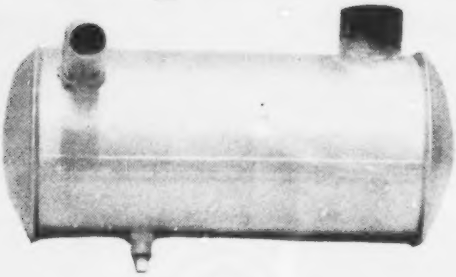
T-12863

T-13109

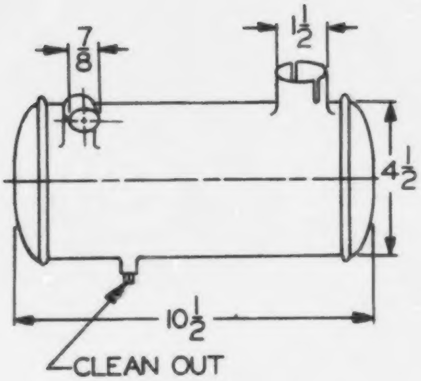

22
2½
CLEAN-OUT
14
3

T-13109

NELSON (Continued)

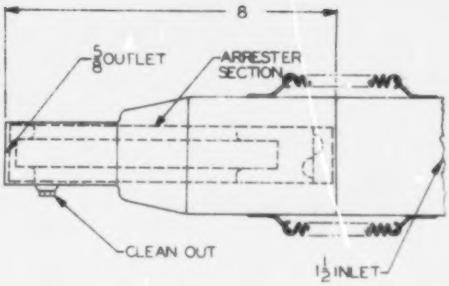


T-13265

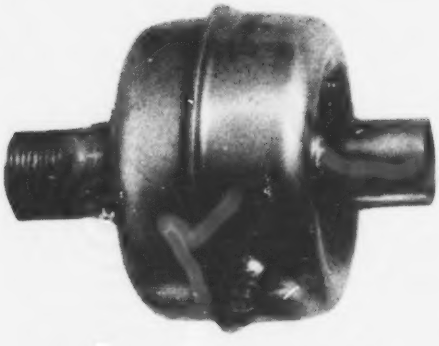

7/8
1 1/2
4 1/2
10 1/2
CLEAN OUT

T-13265

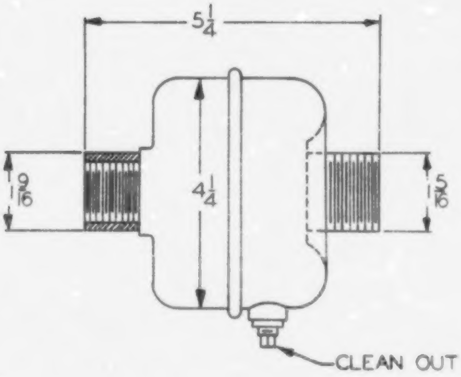
T-13300


8
5/8 OUTLET
ARRESTER SECTION
CLEAN OUT
1 1/2 INLET

T-13300

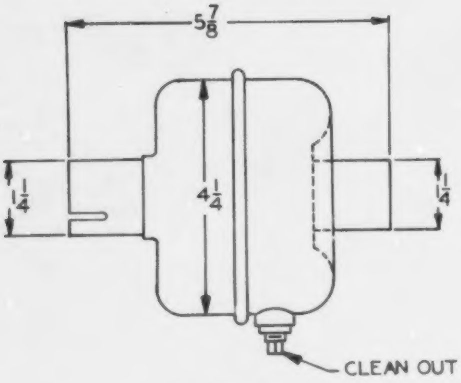


T-13304

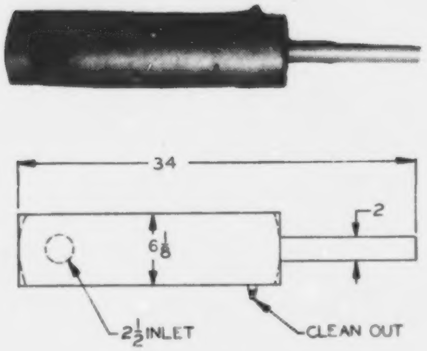

5 1/4
1 9/16
4 1/4
1 5/16
CLEAN OUT

T-13304

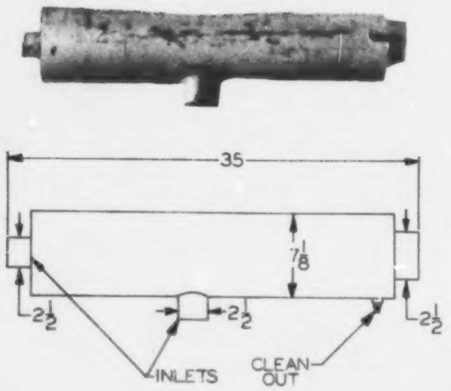
NELSON (Continued)


5 7/8
1 1/4
4 1/4
1 1/4
CLEAN OUT

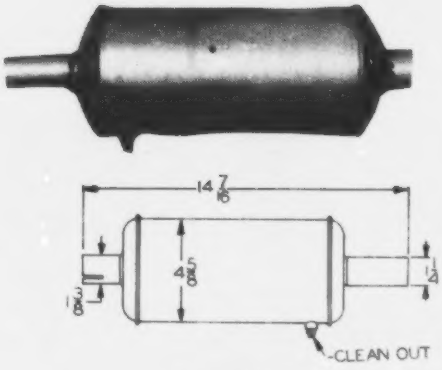
T-13376


34
2
6 1/8
2 1/2 INLET
CLEAN OUT

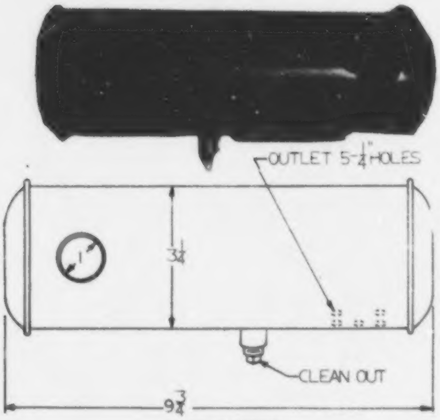
T-13473


35
7 1/8
2 1/2
2 1/2
2 1/2
INLETS
CLEAN OUT

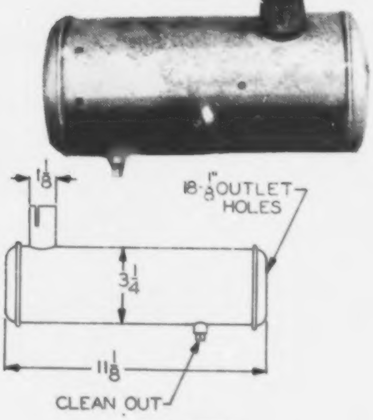
T-13502


14 7/16
4 5/8
1 3/8
1 1/4
CLEAN OUT

T-13529


OUTLET 5-1/4" HOLES
1"
3 1/4
CLEAN OUT
9 3/4

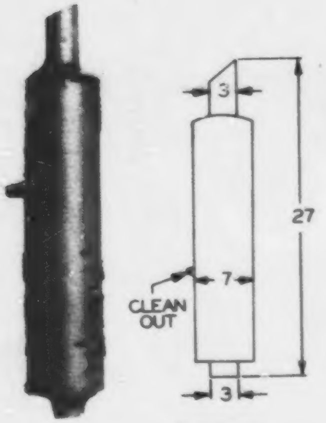
T-13559


1 1/8
18-1/8" OUTLET HOLES
3 1/4
11 1/8
CLEAN OUT

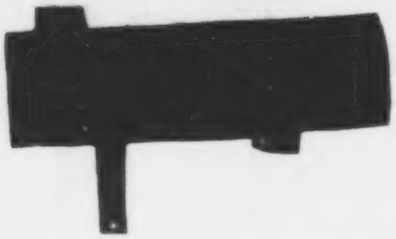
T-13572

NELSON

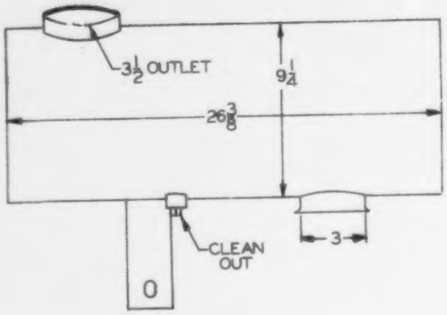
NELSON (Continued)


3
27
7
CLEAN OUT
3

T-13651

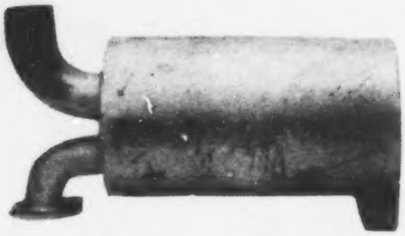


T-13716

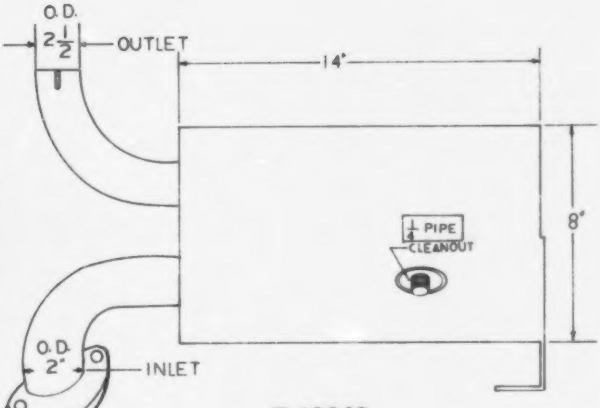

3½ OUTLET
9¼
26⅜
CLEAN OUT
3
0

T-13716

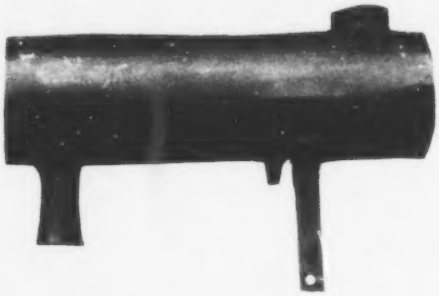
NELSON (Continued)



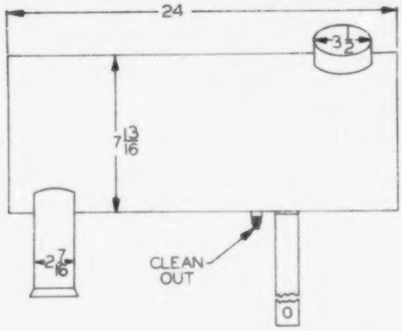
T-13846


O.D.
$2\frac{1}{2}$
OUTLET
14"
8"
$\frac{1}{4}$ PIPE
CLEANOUT
O.D.
2"
INLET

T-13846

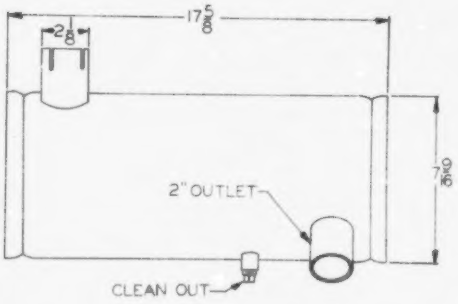


T-13919


24
$3\frac{1}{2}$
$7\frac{13}{16}$
$2\frac{7}{16}$
CLEAN OUT

T-13919

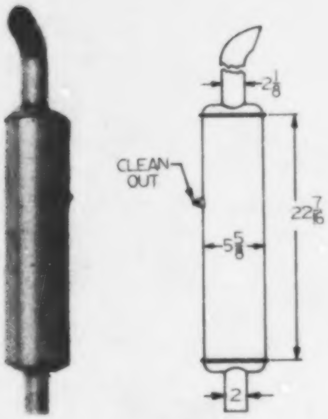
T-13933


$17\frac{5}{8}$
$2\frac{1}{8}$
$7\frac{9}{16}$
2" OUTLET
CLEAN OUT

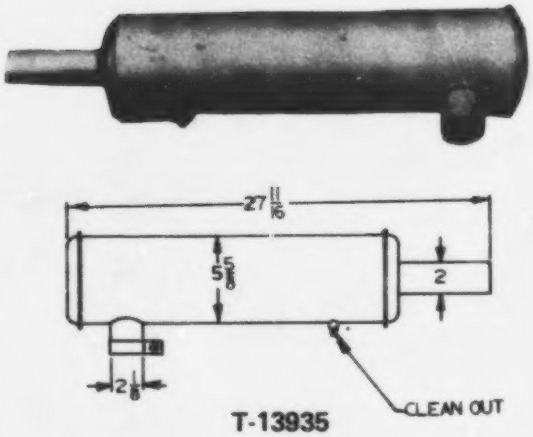
T-13933

NELSON

NELSON (Continued)


2 1/8
CLEAN OUT
22 7/16
5 5/8
2

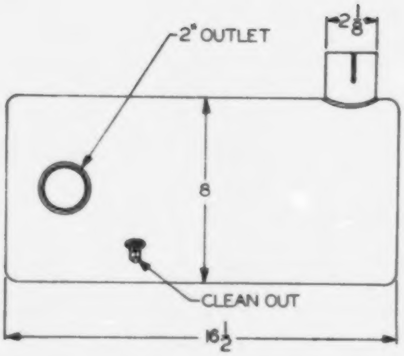
T-13934


27 11/16
5 5/8
2
2 1/8
CLEAN OUT

T-13935

NELSON (Continued)

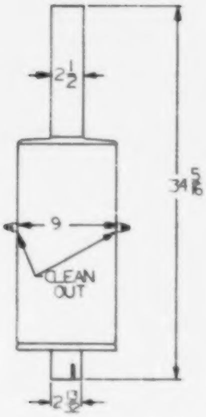
T-13940


2" OUTLET
$2\frac{1}{8}$
8
CLEAN OUT
$16\frac{1}{2}$

T-13940

T-13944 SEE T-10291

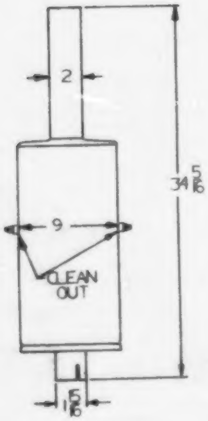
T-13977


$2\frac{1}{2}$
$34\frac{5}{16}$
9
CLEAN OUT
$2\frac{13}{32}$

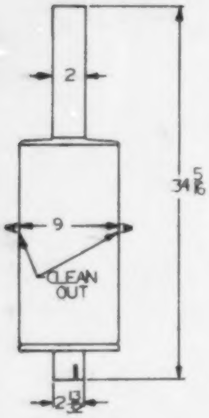
T-13977

NELSON (Continued)

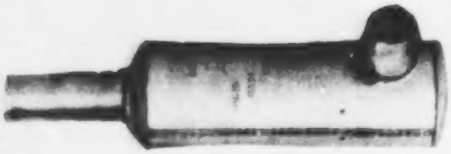
T-13978


2
34 5/16
9
CLEAN OUT
1 15/16

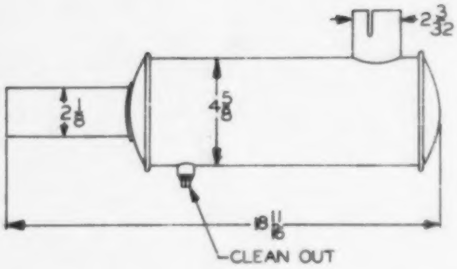
T-13978


2
34 5/16
9
CLEAN OUT
2 13/32

T-13979

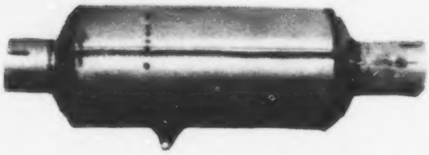


T-13994

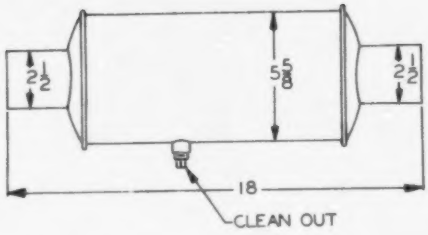

2 3/32
2 1/8
4 5/8
18 11/16
CLEAN OUT

T-13994

NELSON (Continued)

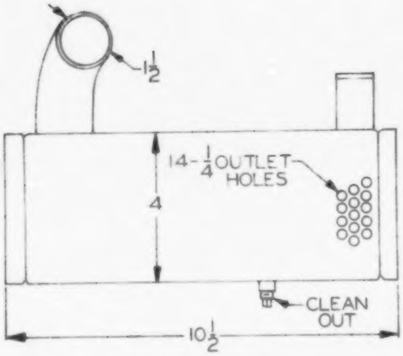


T-13995


2½
5⅝
2½
18
CLEAN OUT

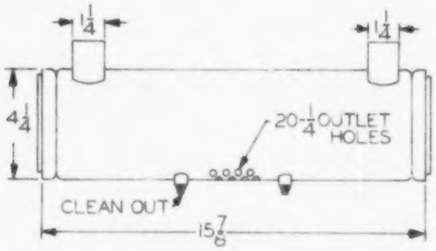
T-13995

T-13999


1½
14-¼ OUTLET HOLES
4
CLEAN OUT
10½

T-13999

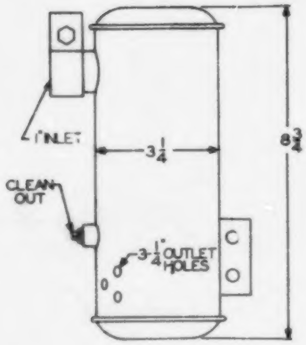
T-14000


1¼
1¼
4¼
20-¼ OUTLET HOLES
CLEAN OUT
15⅞

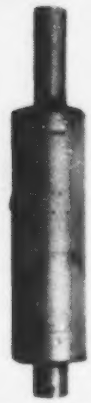
T-14000

NELSON (Continued)

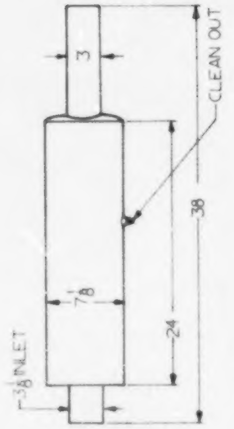
T-14002


1" INLET
3 1/4
8 3/4
CLEAN-OUT
3-1/4" OUTLET HOLES

T-14002



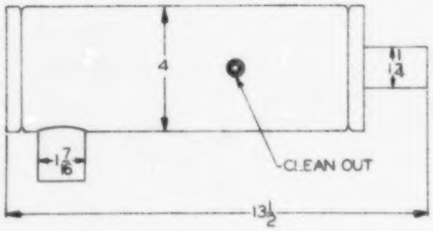
T-14005


3
CLEAN OUT
38
1 7/8
24
3 1/8 INLET

T-14005

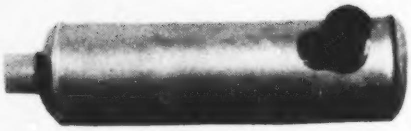
T-14066 SEE T-9213

T-14090

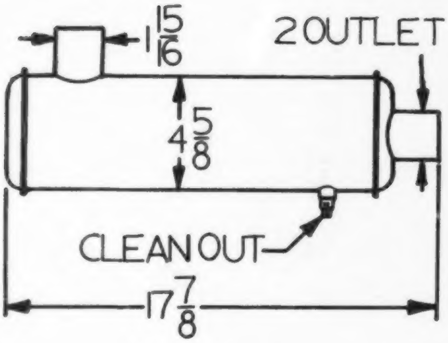

4
1 1/4
CLEAN OUT
1 7/16
13 1/2

T-14090

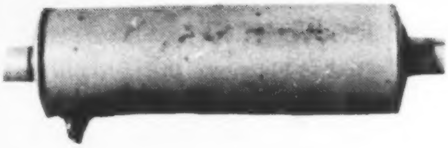
NELSON (Continued)



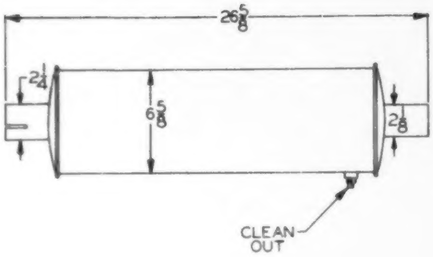
T-14099


1 15/16
2 OUTLET
4 5/8
CLEAN OUT
17 7/8

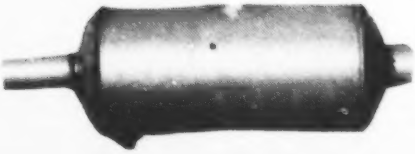
T-14099



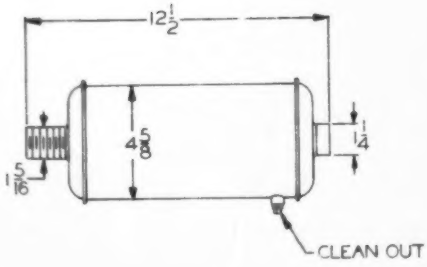
T-14105


26 5/8
2 1/4
6 5/8
2 1/8
CLEAN OUT

T-14105



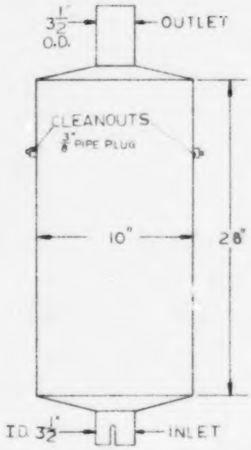
T-14106


12 1/2
4 5/8
1 1/4
1 5/16
CLEAN OUT

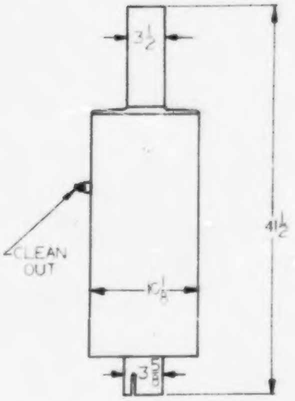
T-14106

NELSON (Continued)

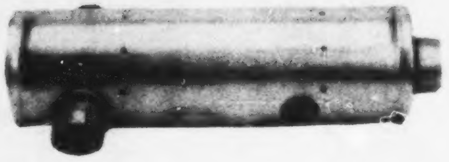
T-14110
T-14110B


3½" O.D.
OUTLET
CLEANOUTS
⅜" PIPE PLUG
10"
28"
I.D. 3½"
INLET

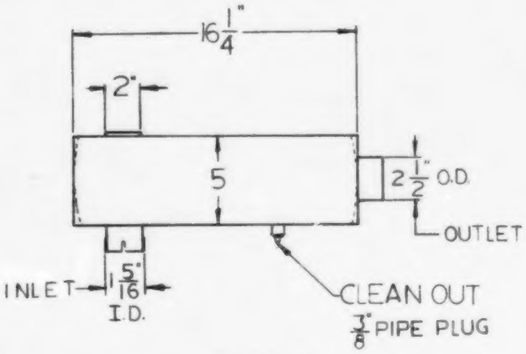
T-14110


3½
CLEAN OUT
10⅛
41½
3⅝

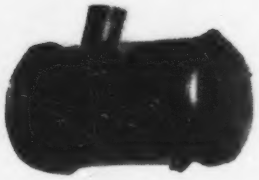
T-14110B



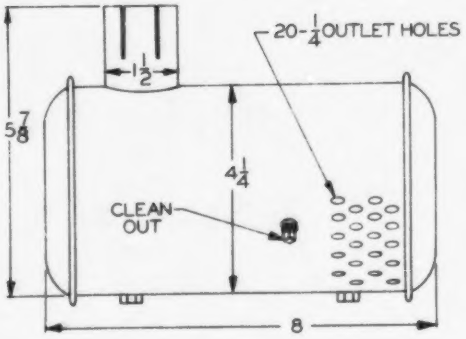
14113


16¼"
2"
5
2½" O.D.
OUTLET
INLET
1 5/16"
I.D.
CLEAN OUT
⅜" PIPE PLUG

T-14113



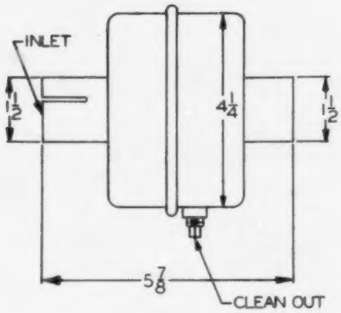
T-14116


20-¼ OUTLET HOLES
1½
5⅞
4¼
CLEAN OUT
8

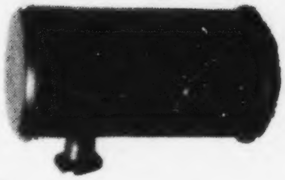
T-14116

NELSON (Continued)

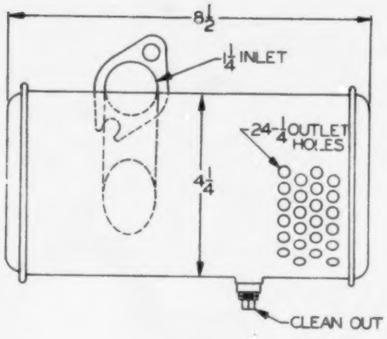
T-14123


INLET
1 1/2
4 1/4
1 1/2
5 7/8
CLEAN OUT

T-14123

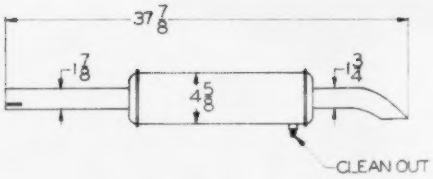


T-14125


8 1/2
1 1/4 INLET
24-1/4 OUTLET HOLES
4 1/4
CLEAN OUT

T-14125

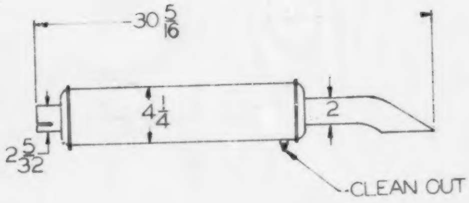
T-14214


37 7/8
1 7/8
4 5/8
1 3/4
CLEAN OUT

T-14214

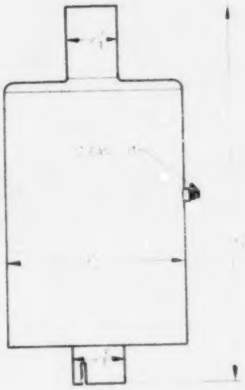
NELSON (Continued)

T-14217

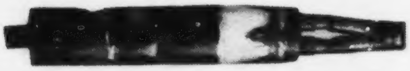

30 5/16
4 1/4
2
2 5/32
CLEAN OUT

T-14217

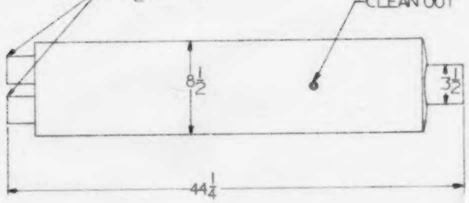
T-14219



T-14219



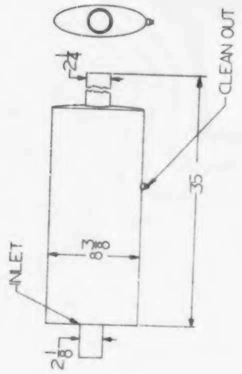
T-14220


2-2½ INLETS
CLEAN OUT
8½
3½
44¼

T-14220

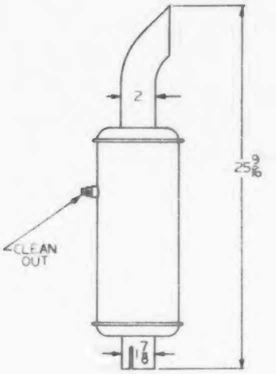
NELSON (Continued)

T-14222


2 1/4
CLEAN OUT
35
8 3/8
INLET
2 1/8

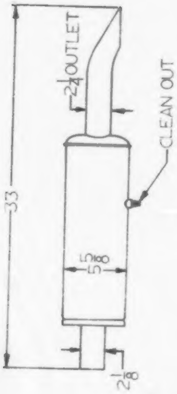
T-14222

T-14223


2
25 9/16
CLEAN OUT
1 7/8

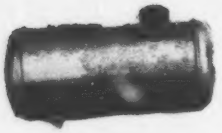
T-14223

T-14224

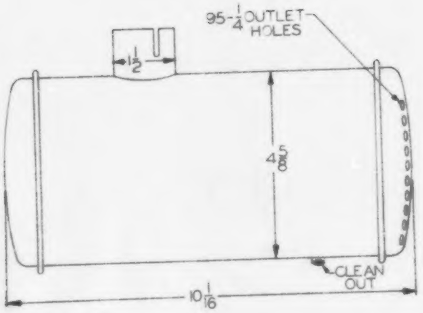

2 1/4 OUTLET
CLEAN OUT
33
5 5/8
2 1/8

T-14224

NELSON (Continued)



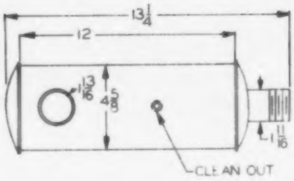
T-14315


95-1/4 OUTLET HOLES
1 1/2
4 5/8
CLEAN OUT
10 1/16

T-14315

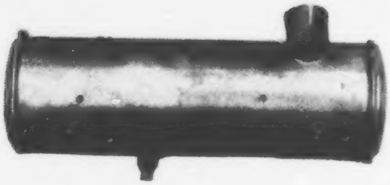
NELSON (Continued)

T-14316

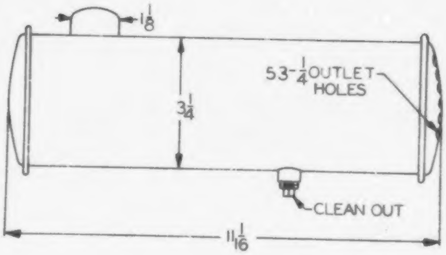


13 1/4
12
1 13/16
4 5/8
1 11/16
CLEAN OUT

T-14316



T-14321

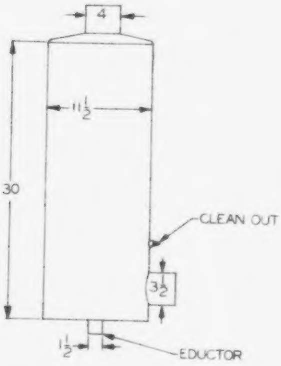


1 1/8
3 1/4
53-1/4 OUTLET HOLES
CLEAN OUT
11 1/16

T-14321

T-14327 SEE NELSON T-12499

T-14334



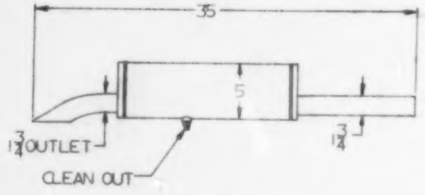
4
11 1/2
30
CLEAN OUT
3 1/2
1 1/2
EDUCTOR

T-14334

NELSON (Continued)

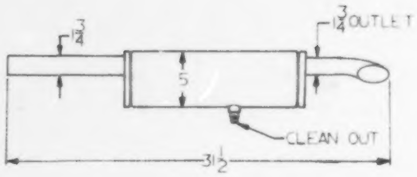
T-14382 SEE T-10244

T-14402


35
5
1¾ OUTLET
CLEAN OUT
1¾

T-14402

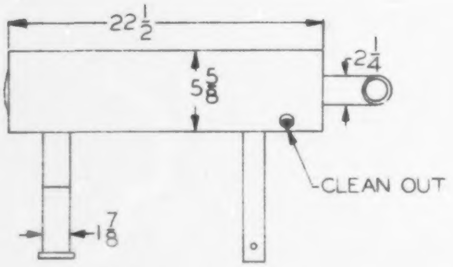
T-14403


1¾
1¾ OUTLET
5
CLEAN OUT
31½

T-14403

T-14406 SEE T-13529

T-14415

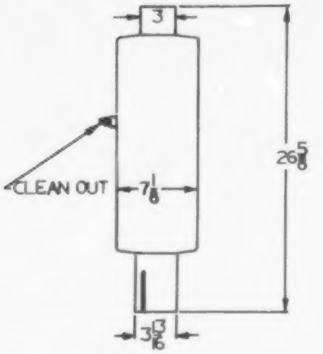

22½
5⅝
2¼
CLEAN OUT
1⅞

T-14415

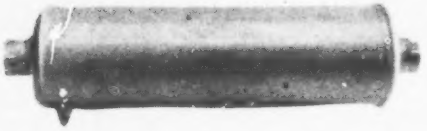
T-14425 SEE T-14123

NELSON (Continued)

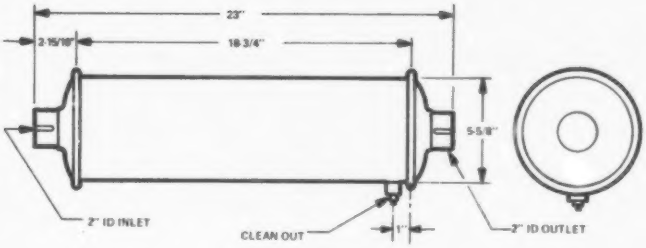
T-14529


3
CLEAN OUT
7 1/8
26 5/8
3 13/16

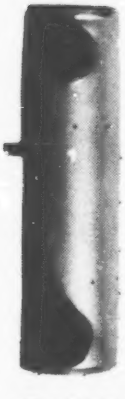
T-14529



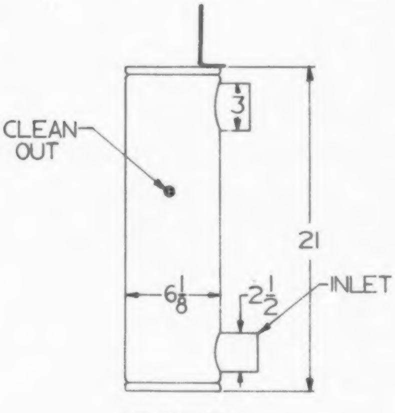
T-14572


23"
2-15/16"
18-3/4"
5-5/8"
2" ID INLET
CLEAN OUT
1"
2" ID OUTLET

T-14572

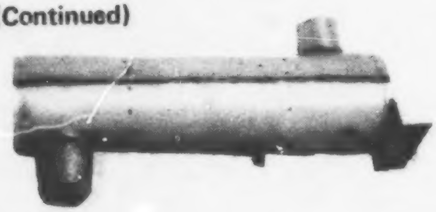


T-14630

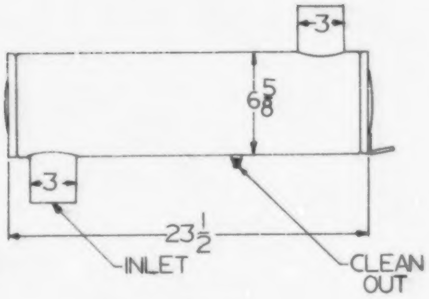

CLEAN-
OUT
3
21
6 1/8
2 1/2
INLET

T-14630

NELSON (Continued)

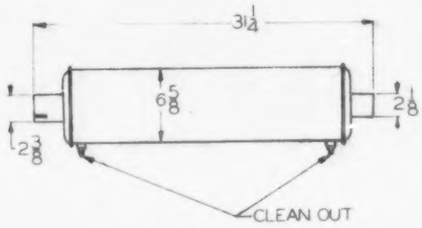


T-14631


3
6 5/8
3
23 1/2
INLET
CLEAN OUT

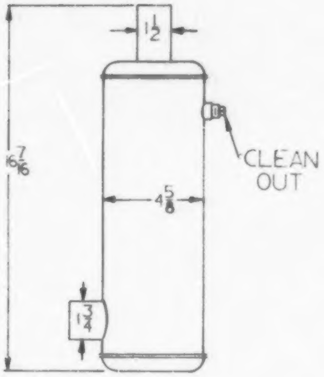
T-14631

T-14671


31 1/4
6 5/8
2 1/8
2 3/8
CLEAN OUT

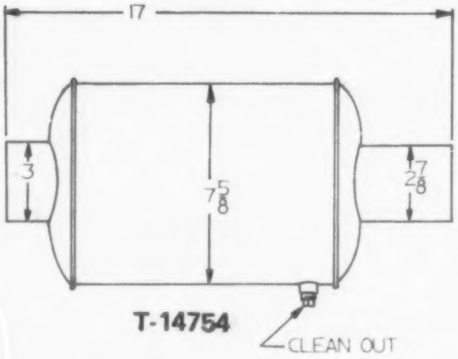
T-14671

T-14688


1 1/2
CLEAN OUT
16 7/16
4 5/8
1 3/4

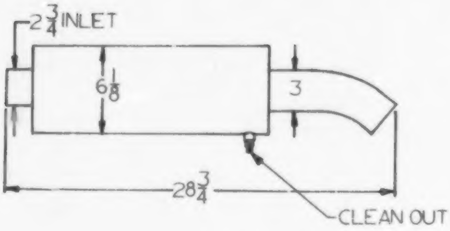
T-14688

T-14754


17
3
7 5/8
2 7/8
CLEAN OUT

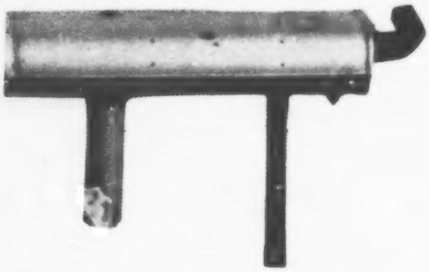
T-14754

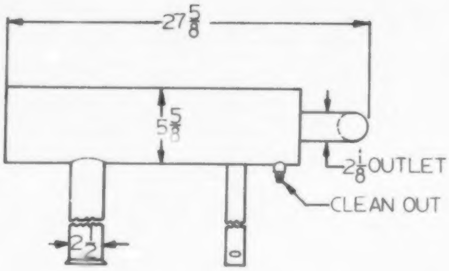
NELSON (Continued)


2 3/4 INLET
6 1/8
3
28 3/4
CLEAN OUT

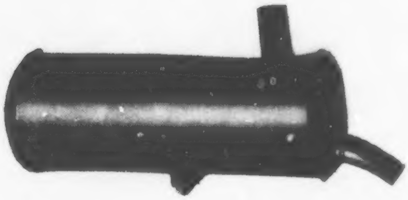
T-14816 **T-14816**

FOR T-14853 SEE ONAN 155-1485

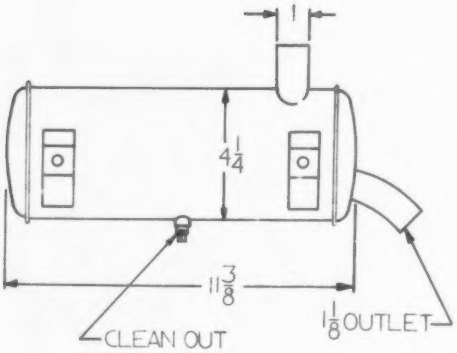



27 5/8
5 5/8
2 1/8 OUTLET
CLEAN OUT
2 1/2

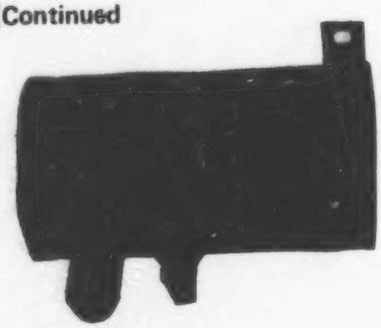
T-14907 **T-14907**



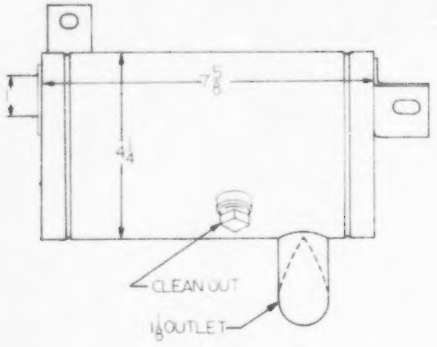
T-15077

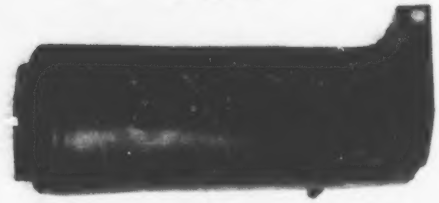

1
4 1/4
11 3/8
CLEAN OUT
1 1/8 OUTLET

NELSON (Continued

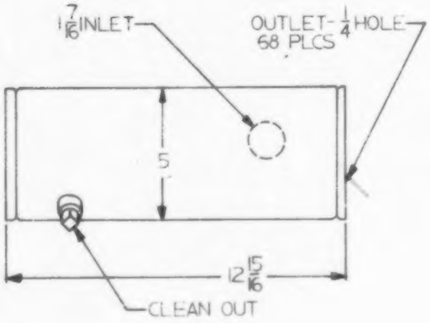


T-15078

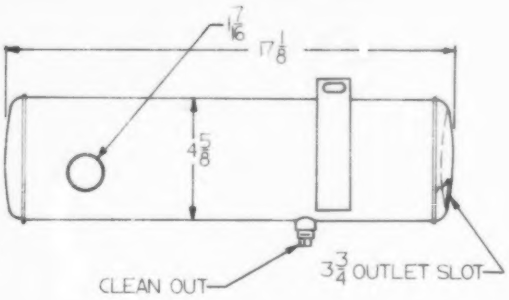

$7\frac{5}{8}$
$4\frac{1}{4}$
CLEAN OUT
$1\frac{1}{8}$ OUTLET



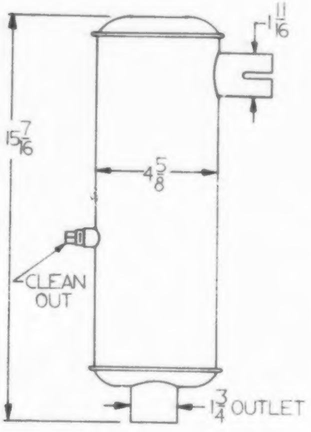
T-15079


$1\frac{7}{16}$ INLET
OUTLET- $\frac{1}{4}$ HOLE
68 PLCS
5
$12\frac{15}{16}$
CLEAN OUT

T-15080

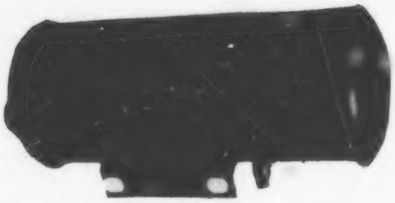

$1\frac{7}{16}$
$17\frac{1}{8}$
$4\frac{5}{8}$
CLEAN OUT
$3\frac{3}{4}$ OUTLET SLOT

T-15215

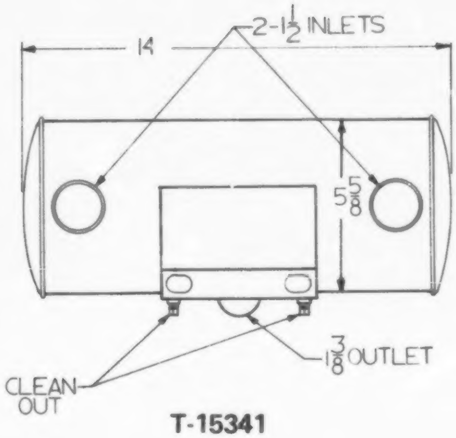

$1\frac{11}{16}$
$15\frac{7}{16}$
$4\frac{5}{8}$
CLEAN OUT
$1\frac{3}{4}$ OUTLET

T-15215

NELSON (Continued)

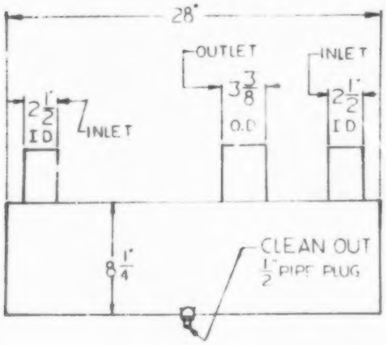


T-15341

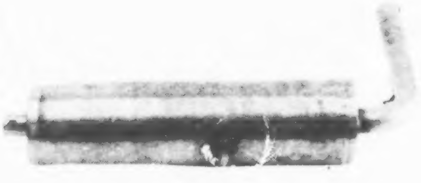

2-1$\frac{1}{2}$ INLETS
14
5$\frac{5}{8}$
1$\frac{3}{8}$OUTLET
CLEAN OUT

T-15341

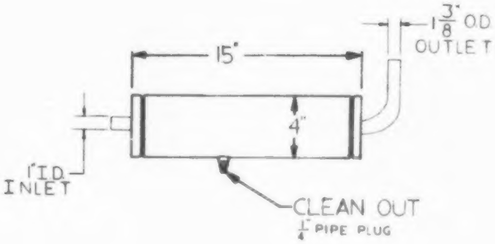
T-15514


28"
OUTLET
INLET
2$\frac{1}{2}$" I D
INLET
3$\frac{3}{8}$ O.D
2$\frac{1}{2}$" I D
8$\frac{1}{4}$"
CLEAN OUT
$\frac{1}{2}$" PIPE PLUG

T-15514



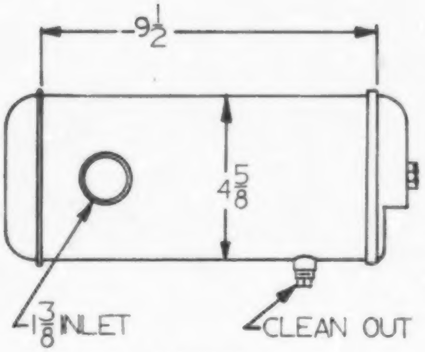
T-15567


1$\frac{3}{8}$" O.D
OUTLET
15"
4"
1" I.D.
INLET
CLEAN OUT
$\frac{1}{4}$" PIPE PLUG

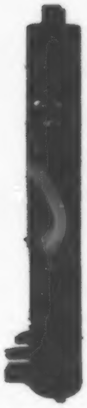
T-15567

NELSON (Continued)

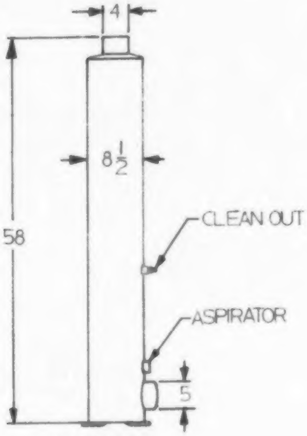
T-15611


9 1/2
4 5/8
1 3/8 INLET
CLEAN OUT

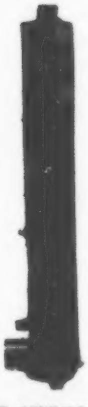
T-15611



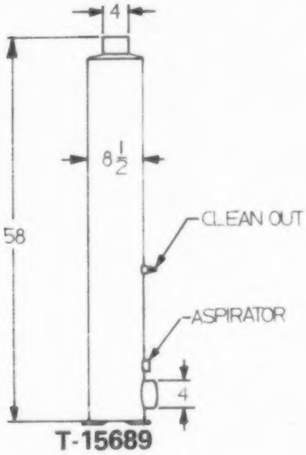
T-15688


4
8 1/2
58
CLEAN OUT
ASPIRATOR
5

T-15688

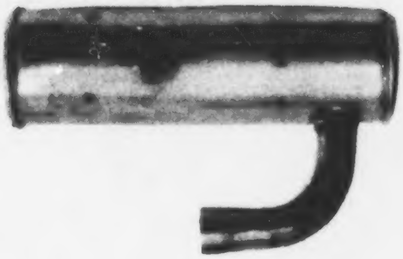


T-15689

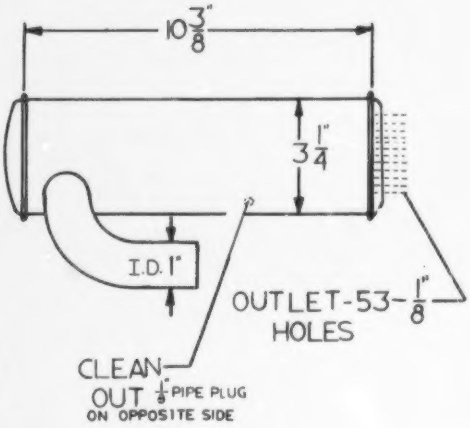

4
8 1/2
58
CLEAN OUT
ASPIRATOR
4

T-15689

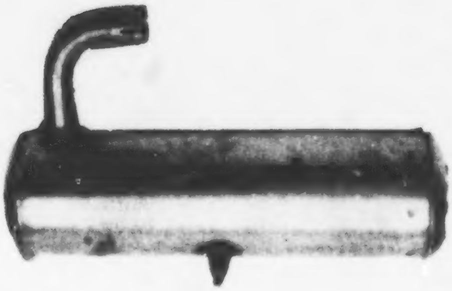
NELSON (Continued)



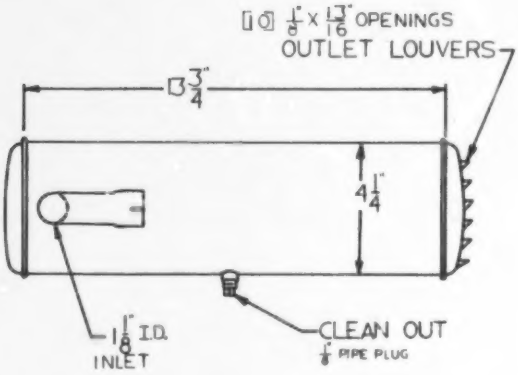
T-15730


10 3/8"
3 1/4"
I.D. 1"
OUTLET-53-1/8" HOLES
CLEAN OUT 1/8" PIPE PLUG ON OPPOSITE SIDE

T-15730

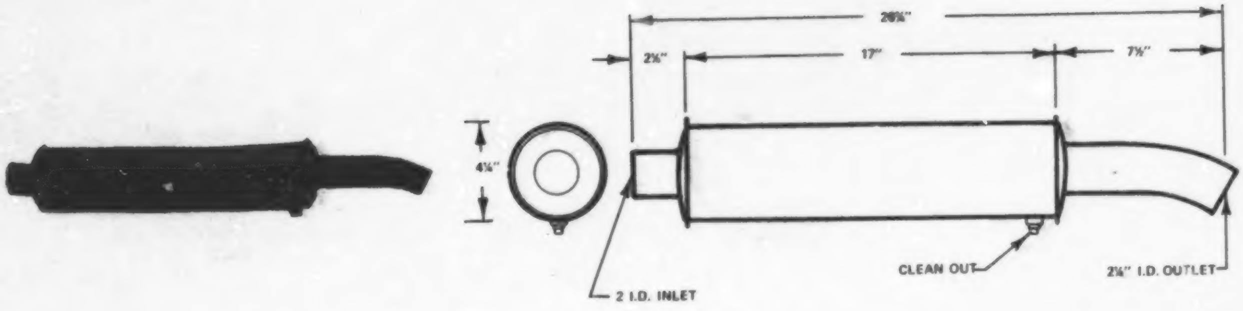


T-15731

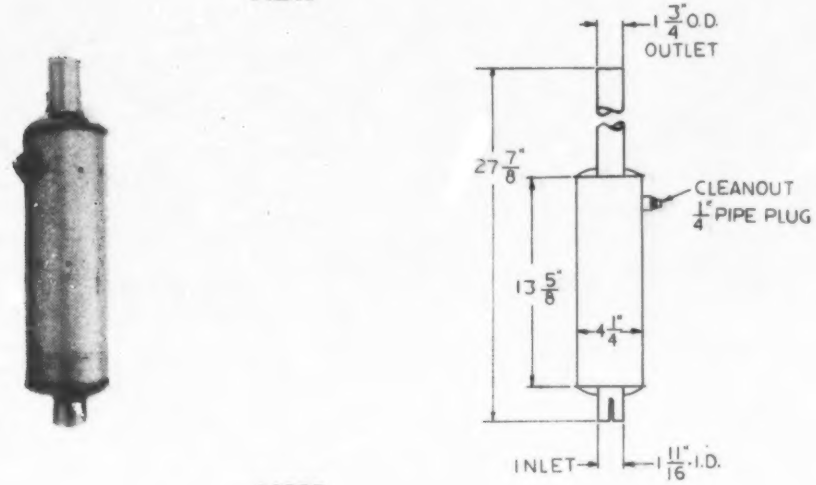

[10] 1/8" x 1 3/16" OPENINGS
OUTLET LOUVERS
13 3/4"
4 1/4"
1 1/8" I.D. INLET
CLEAN OUT 1/8" PIPE PLUG

T-15731

NELSON (Continued)

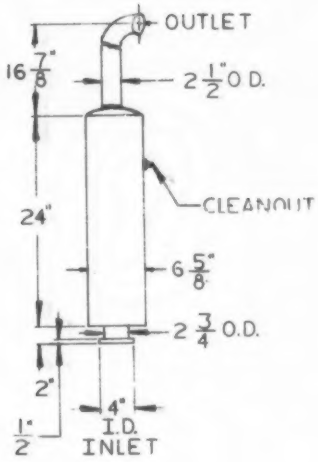

26¾"
2¼"
17"
7½"
4¼"
CLEAN OUT
2¼" I.D. OUTLET
2 I.D. INLET

14217


1 $\frac{3}{4}$" O.D.
OUTLET
27 $\frac{7}{8}$"
CLEANOUT
$\frac{1}{4}$" PIPE PLUG
13 $\frac{5}{8}$"
4 $\frac{1}{4}$"
INLET
1 $\frac{11}{16}$" I.D.

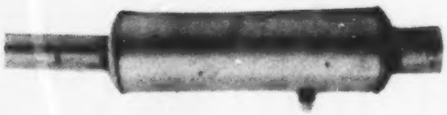
14390

15064A

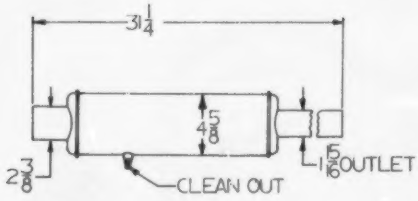

OUTLET
16 $\frac{7}{8}$"
2 $\frac{1}{2}$" O.D.
CLEANOUT
24"
6 $\frac{5}{8}$"
2 $\frac{3}{4}$ O.D.
2"
4"
I.D.
INLET
$\frac{1}{2}$"

15064A

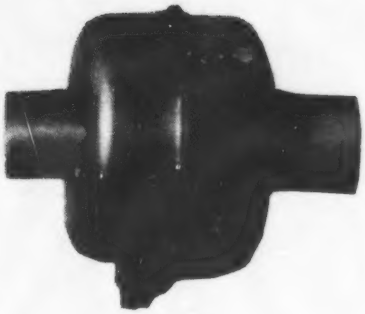
NELSON (Continued)



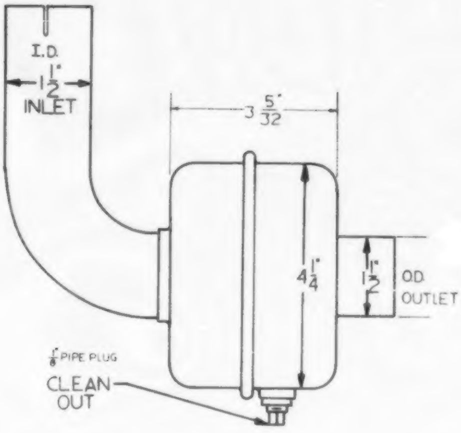
15818


31 1/4
4 5/8
2 3/8
1 15/16 OUTLET
CLEAN OUT

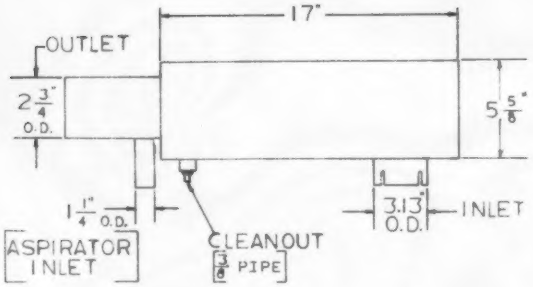
15818



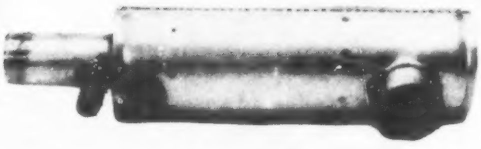
15870


I.D.
1 1/2"
INLET
3 5/32"
4 1/4"
1 1/2"
O.D.
OUTLET
1/8 PIPE PLUG
CLEAN OUT

15870


17"
OUTLET
2 3/4"
O.D.
5 5/8"
1 1/4" O.D.
ASPIRATOR INLET
CLEANOUT
3/8 PIPE
3.13"
O.D.
INLET

15876



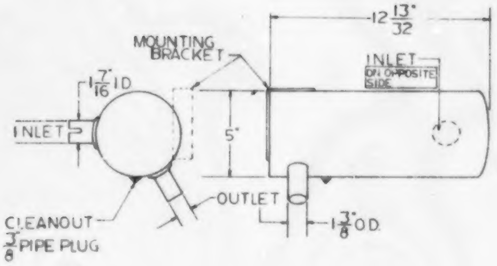
15876

[illegible] AVAILABLE

NELSON (Continued)

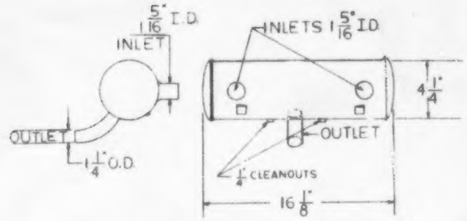
FOR 15893 SEE ONAN 155-1520 (p. 218)

15934

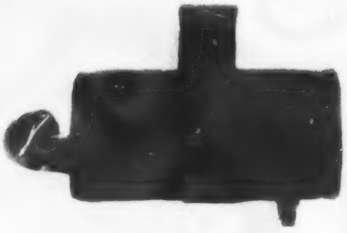

12 13/32"
MOUNTING BRACKET
INLET
ON OPPOSITE SIDE
1 7/16 I.D.
INLET
5"
OUTLET
CLEANOUT
3/8 PIPE PLUG
1 3/8 O.D.

15934

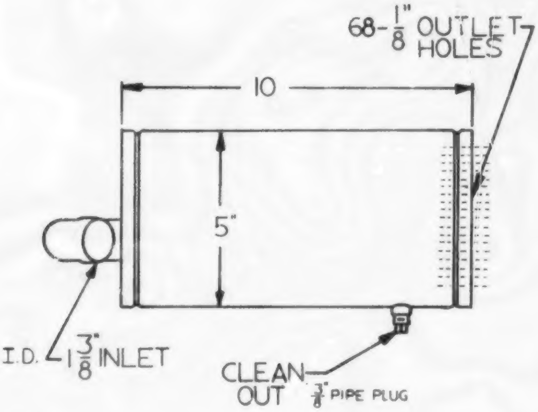
15935


1 5/16" I.D.
INLET
INLETS 1 5/16" I.D.
4 1/4"
OUTLET
OUTLET
1 1/4" O.D.
1/4" CLEANOUTS
16 1/8"

15935



15982

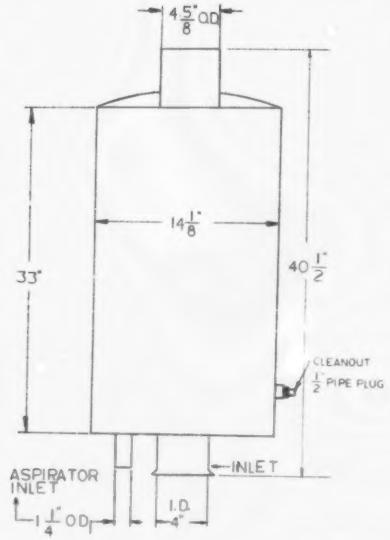

68-1/8" OUTLET HOLES
10
5"
I.D. 1 3/8" INLET
CLEAN-OUT
3/8" PIPE PLUG

15982

FOR 15983 SEE ONAN 155-1520 (p. 218)

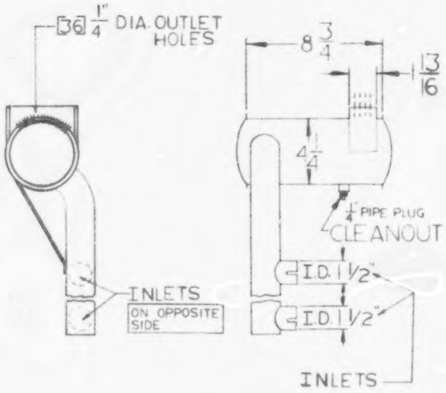
NELSON (Continued)

16001

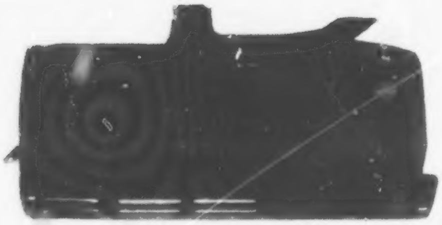

4 5/8" O.D.
14 1/8"
33"
40 1/2"
CLEANOUT
1/2 PIPE PLUG
ASPIRATOR INLET
INLET
I.D. 4"
1 1/4" O.D.

16001

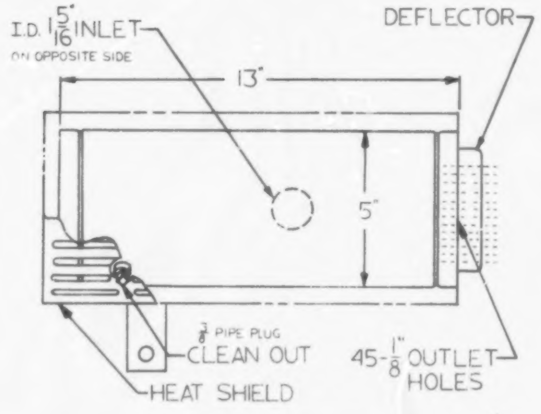
16006


[36] 1/4" DIA. OUTLET HOLES
8 3/4
1 13/16
4 1/4
1/4 PIPE PLUG
CLEANOUT
I.D. 1 1/2"
I.D. 1 1/2"
INLETS
ON OPPOSITE SIDE
INLETS

16006



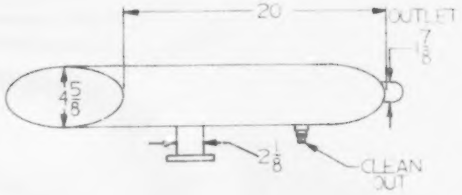
16011


I.D. 1 5/16" INLET
ON OPPOSITE SIDE
DEFLECTOR
13"
5"
3/8 PIPE PLUG
CLEAN OUT
45-1/8" OUTLET HOLES
HEAT SHIELD

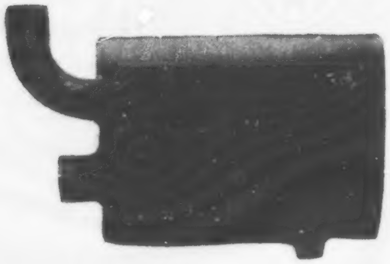
16011

NELSON (Continued)

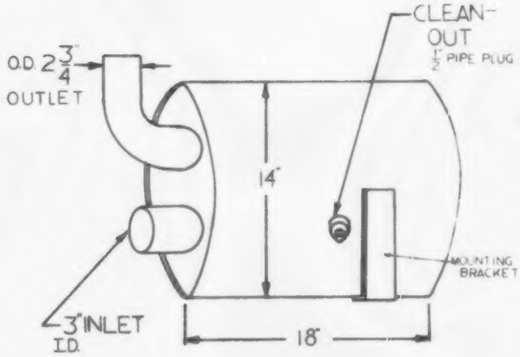
16025


20
OUTLET
1 7/8
4 5/8
2 1/8
CLEAN OUT

16025

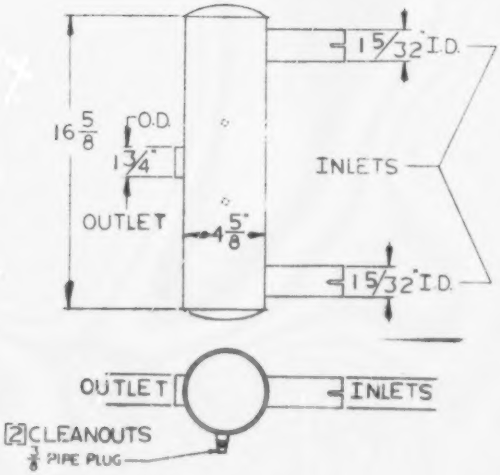


16068


O.D. 2 3/4"
OUTLET
CLEAN-OUT
1/2" PIPE PLUG
14"
MOUNTING BRACKET
3" INLET I.D.
18"

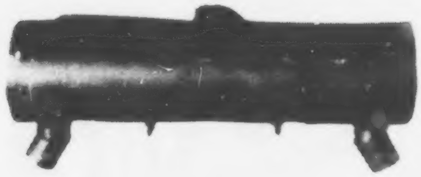
16068

16152

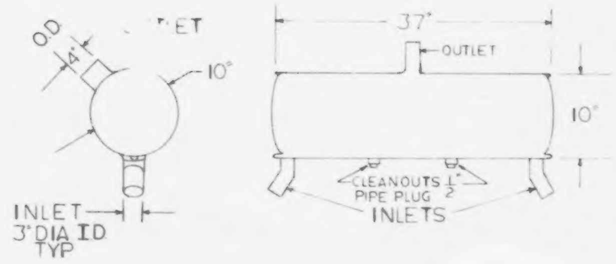

16 5/8
O.D.
1 3/4"
OUTLET
4 5/8"
1 5/32" I.D.
INLETS
1 5/32" I.D.
OUTLET
INLETS
[2] CLEANOUTS
3/8 PIPE PLUG

16152

NELSON (Continued)

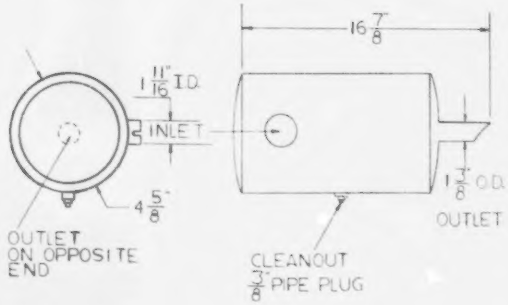


16170

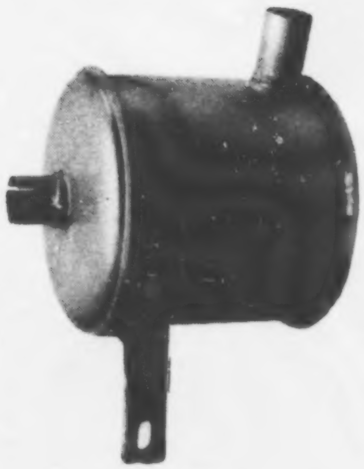

O.D
4"
'ET
10"
INLET
3" DIA I.D.
TYP
37"
OUTLET
10"
CLEANOUTS 1/2"
PIPE PLUG
INLETS

16170

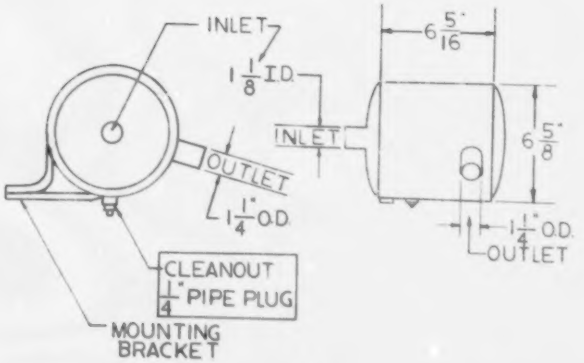
16297


1 11/16" I.D.
INLET
4 5/8"
OUTLET
ON OPPOSITE
END
16 7/8"
1 3/8" O.D.
OUTLET
CLEANOUT
3/8" PIPE PLUG

16297

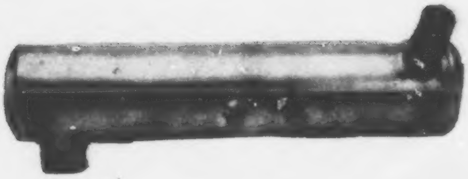


16300

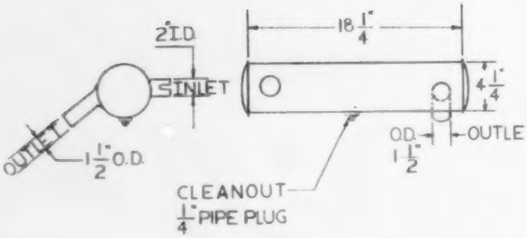

INLET
1 1/8 I.D.
OUTLET
1 1/4" O.D.
CLEANOUT
1/4" PIPE PLUG
MOUNTING
BRACKET
6 5/16"
INLET
6 5/8"
1 1/4" O.D.
OUTLET

16300

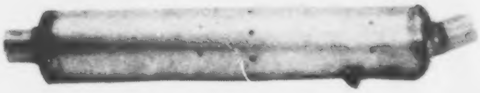
NELSON (Continued)



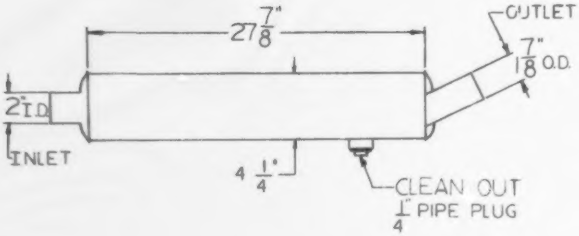
16301


2" I.D.
INLET
OUTLET
1 1/2" O.D.
18 1/4"
4 1/4"
O.D.
1 1/2"
OUTLET
CLEANOUT
1/4" PIPE PLUG

16301

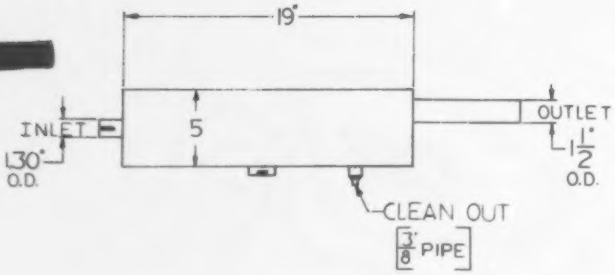


16302


27 7/8"
OUTLET
1 7/8" O.D.
2" I.D.
INLET
4 1/4"
CLEAN OUT
1/4" PIPE PLUG

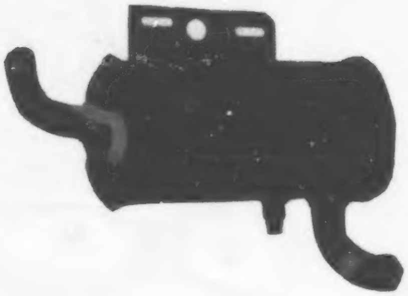
16302

16304

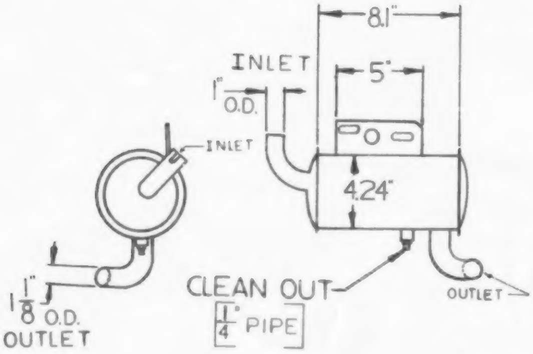

19"
INLET
1.30" O.D.
5
OUTLET
1 1/2" O.D.
CLEAN OUT
3/8" PIPE

16304

NELSON (Continued)

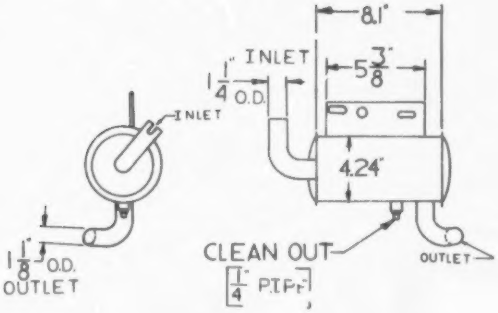


16361


8.1"
INLET
5"
1" O.D.
INLET
4.24"
1 1/8" O.D. OUTLET
CLEAN OUT
1/4" PIPE
OUTLET

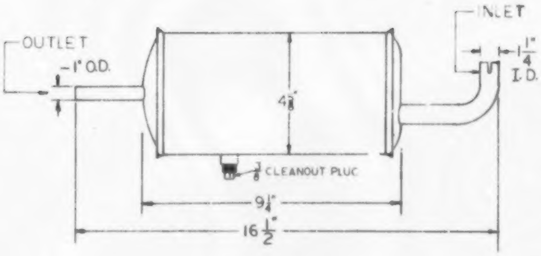
16361

16362


8.1"
INLET
5 3/8"
1 1/4" O.D.
INLET
4.24"
1 1/8" O.D. OUTLET
CLEAN OUT
1/4" PIPE
OUTLET

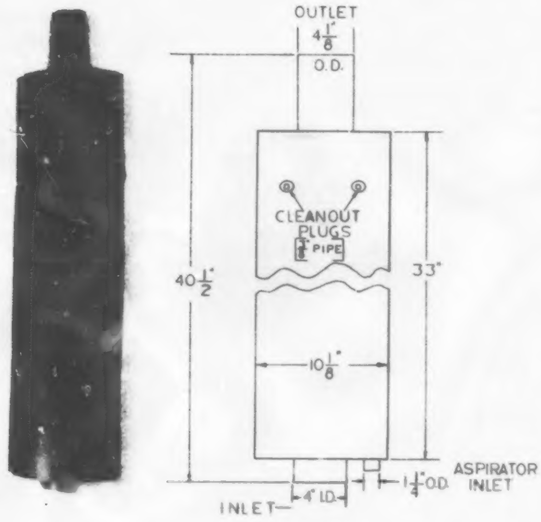
16362

16460

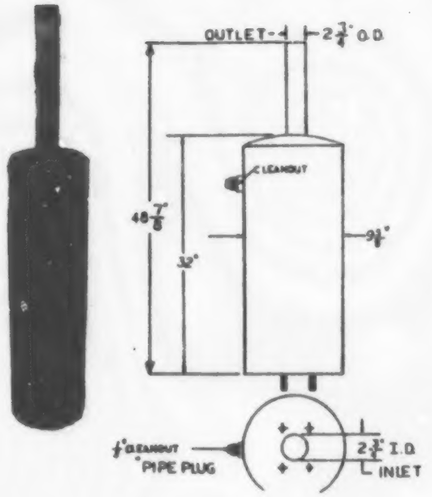

OUTLET
1" O.D.
4 3/8
3/8 CLEANOUT PLUG
9 1/4"
16 1/2"
INLET
1 1/4" I.D.

16460

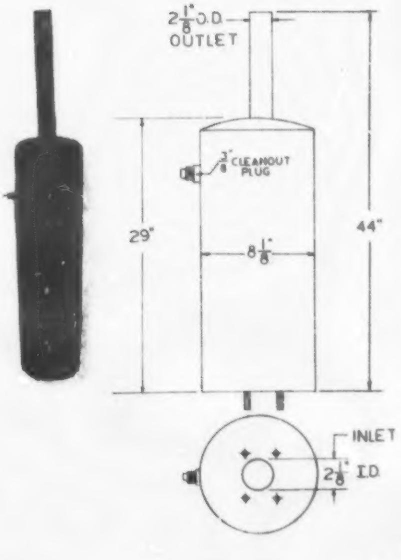
NELSON (Continued)


OUTLET
4 1/8"
O.D.
CLEANOUT PLUGS
3/8 PIPE
40 1/2"
33"
10 1/8"
ASPIRATOR INLET
1 1/4" O.D.
INLET
4" I.D.

16504


OUTLET
2 3/4" O.D.
CLEANOUT
48 7/8"
32"
9 1/8"
CLEANOUT PIPE PLUG
2 3/4" I.D.
INLET

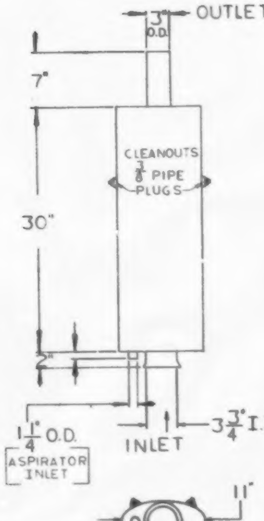
16506A


2 1/8" O.D.
OUTLET
3/8" CLEANOUT PLUG
29"
44"
8 1/8"
INLET
2 1/8" I.D.

16507A

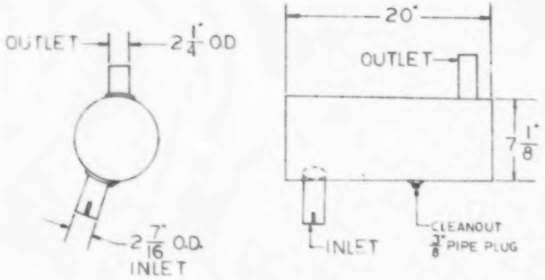
NELSON (Continued)

16538

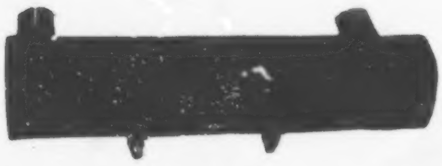

3"
O.D.
OUTLET
7"
30"
CLEANOUTS
3/8 PIPE
PLUGS
2"
1 1/4" O.D.
ASPIRATOR INLET
INLET
3 3/4" I.D.
11"

16538

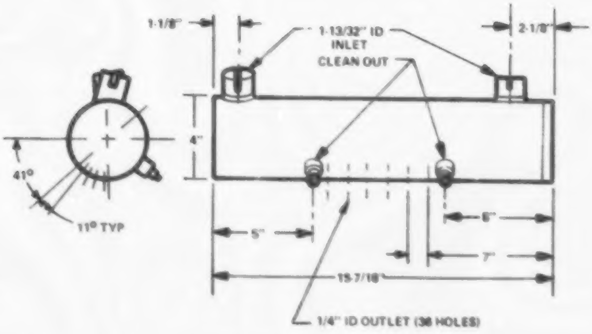
16547


OUTLET
2 1/4" OD
2 7/16" O.D.
INLET
20"
OUTLET
7 1/8"
INLET
CLEANOUT
3/8" PIPE PLUG

16547

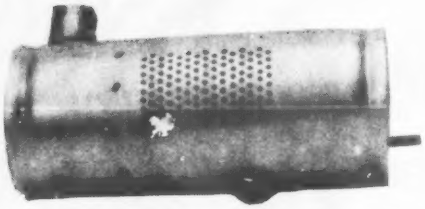


16572

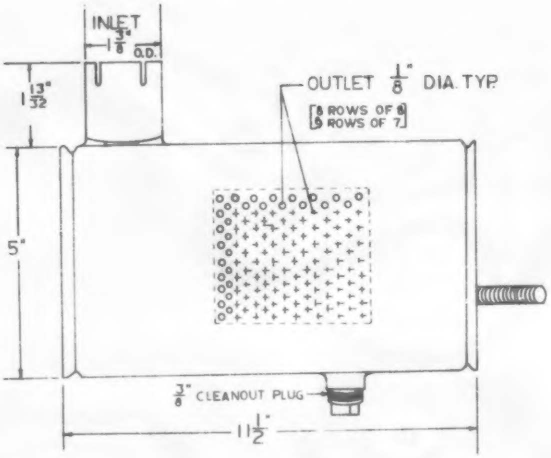

1-1/8"
1-13/32" ID
INLET
CLEAN OUT
2-1/8"
4"
41°
11° TYP
5"
6"
7"
15-7/16"
1/4" ID OUTLET (36 HOLES)

16572

NELSON (Continued)

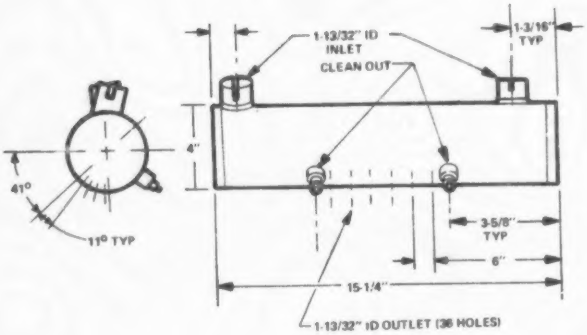


16619

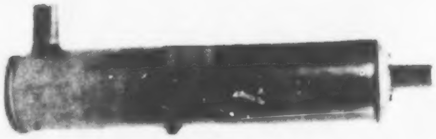

INLET
$1\frac{3}{8}$" O.D.
$1\frac{13}{32}$"
OUTLET $\frac{1}{8}$" DIA. TYP.
8 ROWS OF 8
9 ROWS OF 7
5"
$\frac{3}{8}$" CLEANOUT PLUG
$11\frac{1}{2}$"

16619

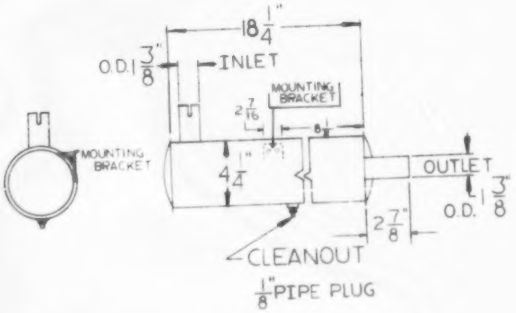
16628


41°
11° TYP
1-13/32" ID
INLET
CLEAN OUT
1-3/16" TYP
4"
3-5/8" TYP
6"
15-1/4"
1-13/32" ID OUTLET (36 HOLES)

16628



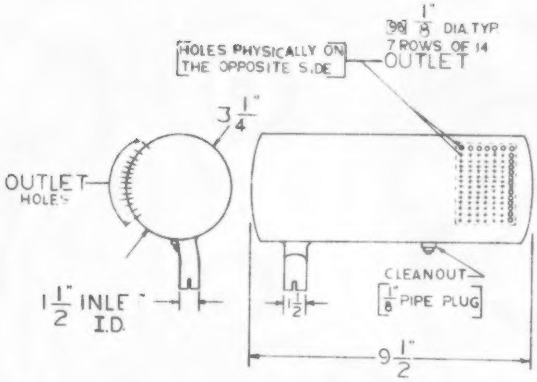
16667


$18\frac{1}{4}$"
O.D. $1\frac{3}{8}$"
INLET
MOUNTING BRACKET
$2\frac{7}{16}$
8
MOUNTING BRACKET
$4\frac{1}{4}$"
OUTLET
O.D. $1\frac{3}{8}$"
$2\frac{7}{8}$"
CLEANOUT
$\frac{1}{8}$" PIPE PLUG

16667

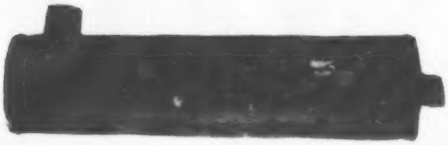
NELSON (Continued)

16752

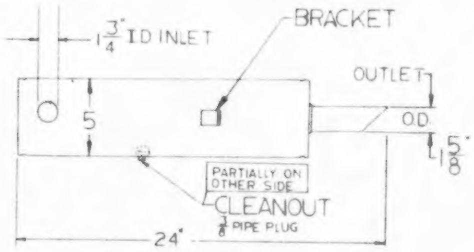

HOLES PHYSICALLY ON THE OPPOSITE SIDE
98 1/8" DIA. TYP
7 ROWS OF 14
OUTLET
3 1/4"
OUTLET HOLES
1 1/2" INLET I.D.
1 1/2
CLEANOUT
1/8" PIPE PLUG
9 1/2"

16752

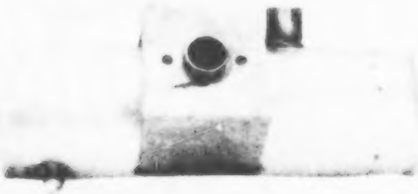
ALSO ONAN 155-1698



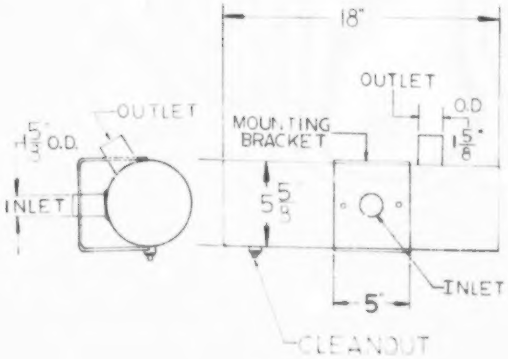
16825


1 3/4" I.D INLET
BRACKET
OUTLET
5
O.D.
1 5/8"
PARTIALLY ON OTHER SIDE
CLEANOUT
1/8" PIPE PLUG
24"

16825

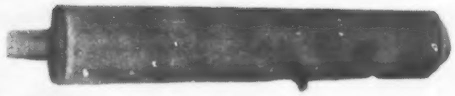


16828

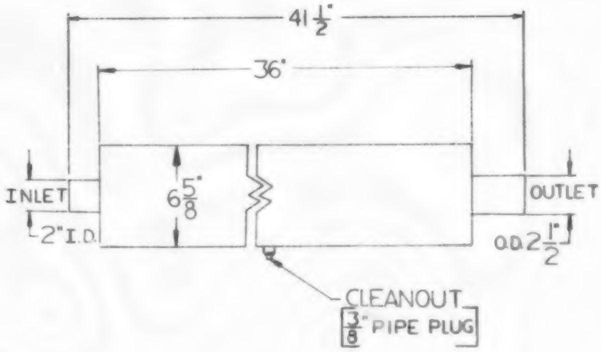

18"
OUTLET
O.D
1 5/8"
OUTLET
1 5/8" O.D.
MOUNTING BRACKET
INLET
5 5/8
INLET
5"
CLEANOUT

16828

NELSON (Continued)

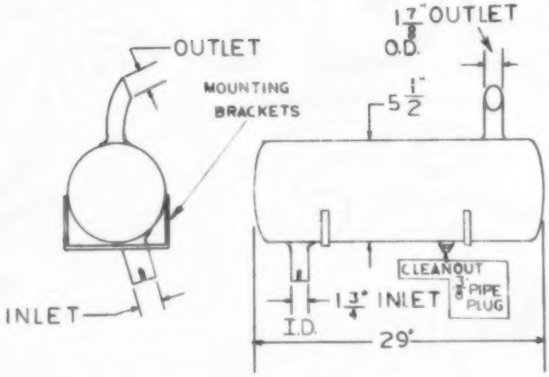


16868


41 1/2"
36"
INLET
2" I.D.
6 5/8"
OUTLET
O.D. 2 1/2"
CLEANOUT
3/8" PIPE PLUG

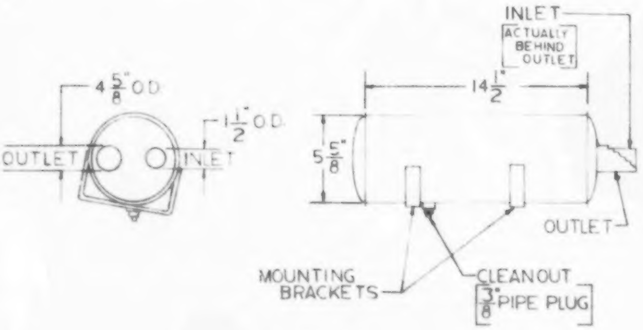
16868

16888


OUTLET
MOUNTING BRACKETS
INLET
1 7/8" OUTLET
O.D.
5 1/2"
CLEANOUT
3/8" PIPE PLUG
1 3/4" INLET
I.D.
29"

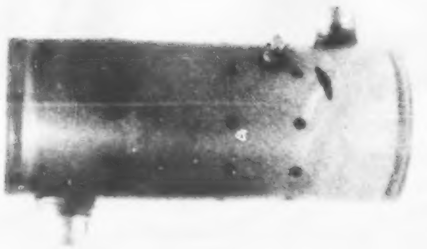
16888

16932

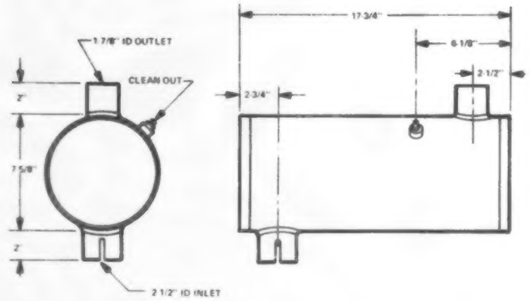

4 5/8" O.D.
1 1/2" O.D.
OUTLET
INLET
INLET
ACTUALLY BEHIND OUTLET
14 1/2"
5 5/8"
OUTLET
MOUNTING BRACKETS
CLEANOUT
3/8" PIPE PLUG

16932

NELSON (Continued)

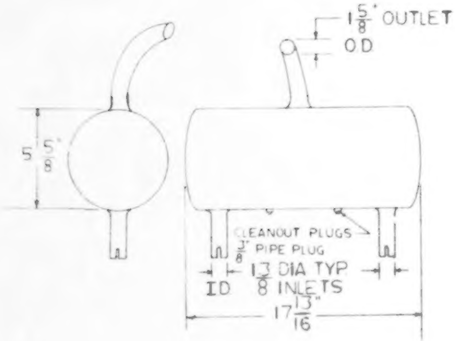


16956

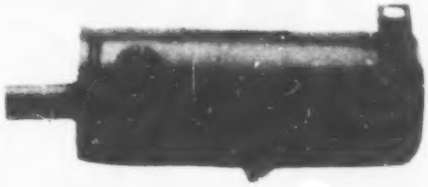

1 7/8" ID OUTLET
CLEAN OUT
2"
7 5/8"
2"
2 1/2" ID INLET
17 3/4"
6 1/8"
2 1/2"
2 3/4"

16956

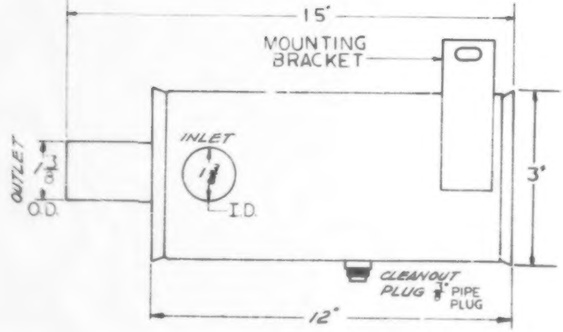
16986


1 5/8" OUTLET
O.D.
5 5/8"
CLEANOUT PLUGS
3/8" PIPE PLUG
1 3/8 DIA TYP
I.D. INLETS
17 13/16"

16986

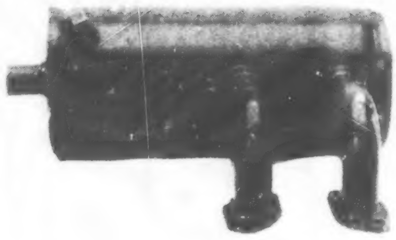


16988

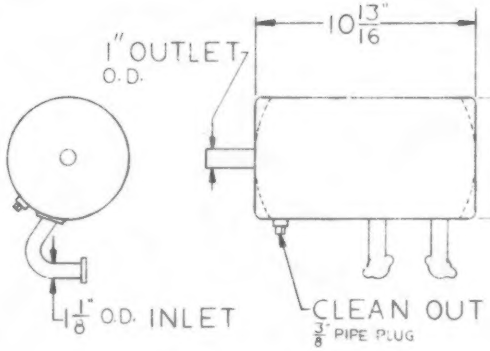

15"
MOUNTING
BRACKET
OUTLET
1 3/8
O.D.
INLET
1 1/2
I.D.
3"
CLEANOUT
PLUG 1/8" PIPE
PLUG
12"

16988

NELSON (Continued)

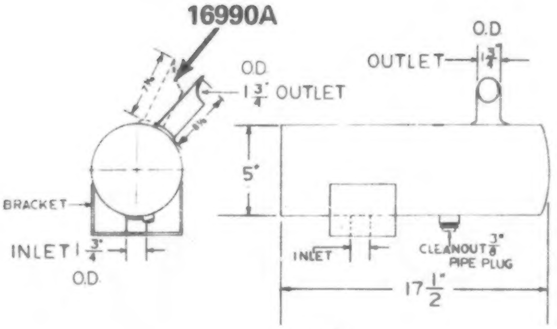


16989


10 13/16"
1" OUTLET
O.D.
5"
1 1/8" O.D. INLET
CLEAN OUT
3/8" PIPE PLUG

16989

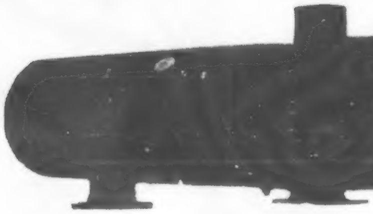
16990
16990A


16990A
O.D.
1 3/4" OUTLET
OUTLET
O.D
1 3/4"
5"
BRACKET
INLET 1 3/4"
O.D.
INLET
CLEANOUT 3/8"
PIPE PLUG
17 1/2"

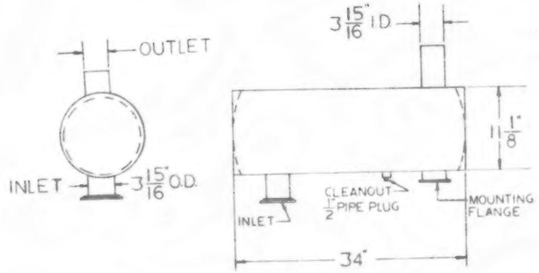
16990
16990A

NOTE: The difference between the 16990 and 16990A is the rotation angle, and length of outlet tube.

NELSON (Continued)

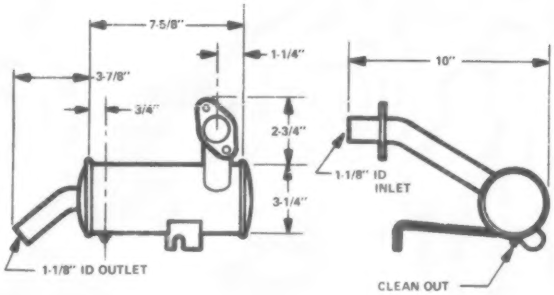


17005


OUTLET
INLET
3 15/16" O.D.
3 15/16" I.D.
11 1/8"
CLEANOUT
1/2" PIPE PLUG
INLET
MOUNTING FLANGE
34"

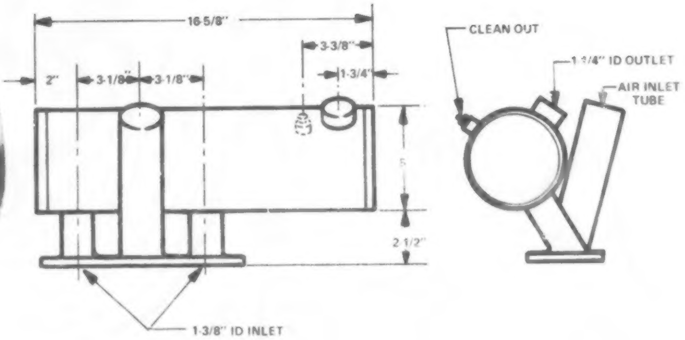
17005

17043


7-5/8"
1-1/4"
3-7/8"
3/4"
2-3/4"
3-1/4"
1-1/8" ID OUTLET
10"
1-1/8" ID INLET
CLEAN OUT

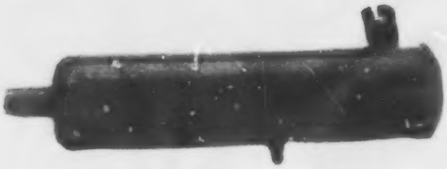
17043

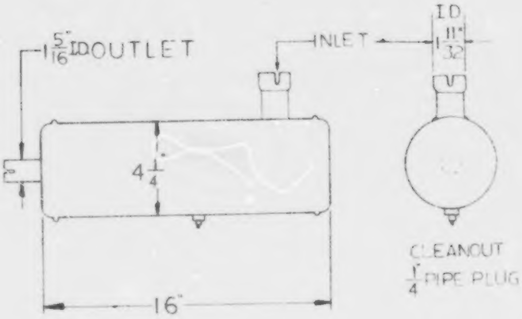
17088


16-5/8"
3-3/8"
2"
3-1/8"
3-1/8"
1-3/4"
5
2-1/2"
1-3/8" ID INLET
CLEAN OUT
1-1/4" ID OUTLET
AIR INLET TUBE

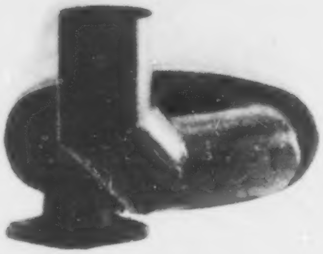
17088

NELSON (Continued)

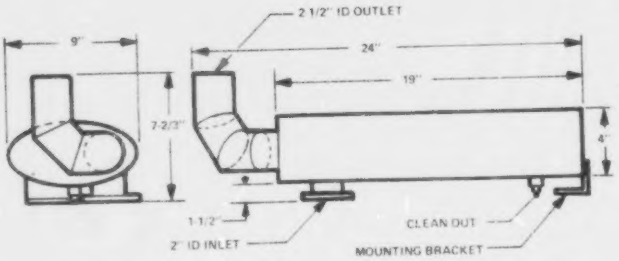



1 5/16" ID OUTLET
INLET
I.D. 1 11/32"
4 1/4"
16"
CLEANOUT
1/4 PIPE PLUG

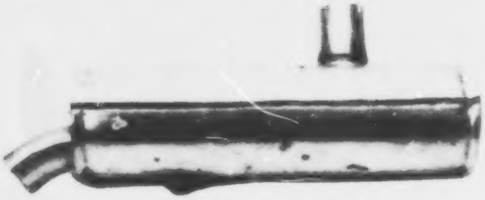
17112

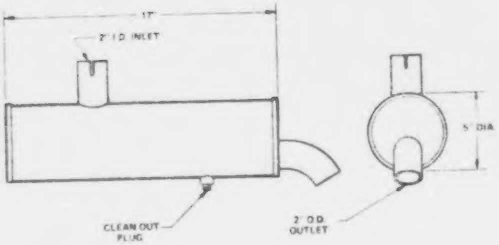


17123

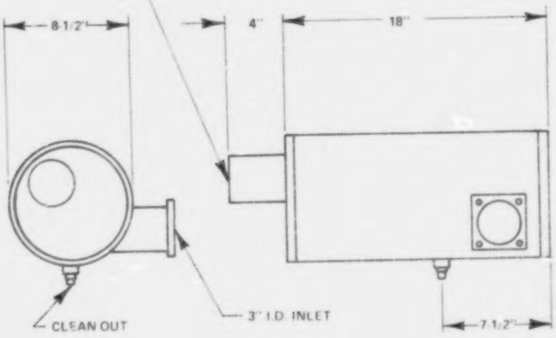

2 1/2" ID OUTLET
9"
24"
19"
7-2/3"
4"
1-1/2"
2" ID INLET
CLEAN OUT
MOUNTING BRACKET

17123



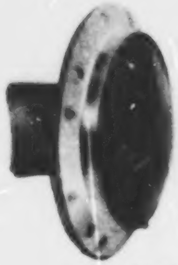

17"
2" I.D. INLET
5" DIA
CLEAN OUT PLUG
2" O.D. OUTLET

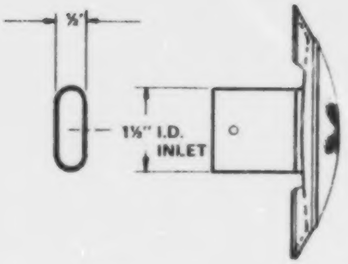
17185


3-1/4" I.D. OUTLET
8-1/2"
4"
18"
CLEAN OUT
3" I.D. INLET
7-1/2"

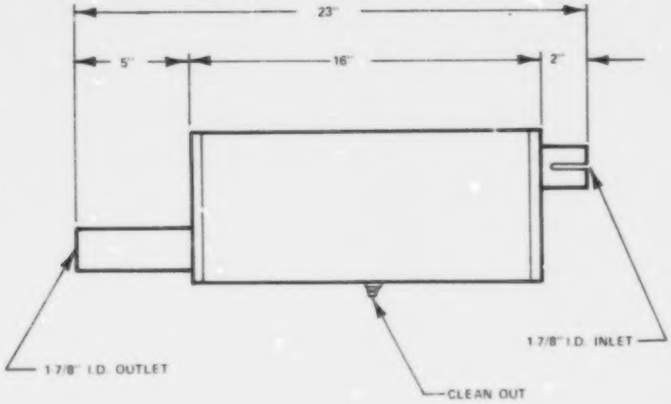
17254

NELSON (Continued)

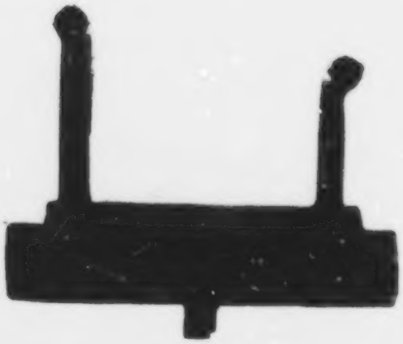



⅝"
1½" I.D.
INLET

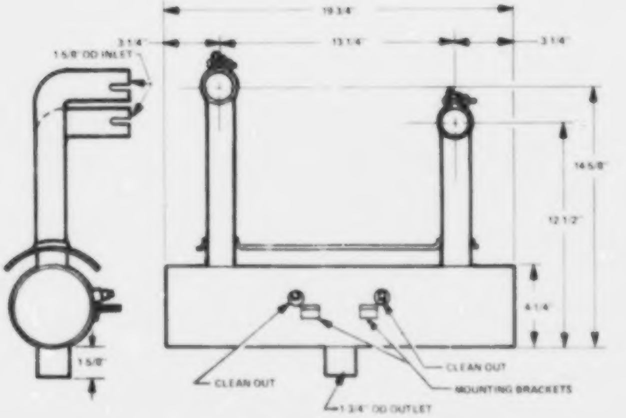
ADAPTER 17318


23"
5"
16"
2"
1-7/8" I.D. OUTLET
CLEAN OUT
1-7/8" I.D. INLET

17334



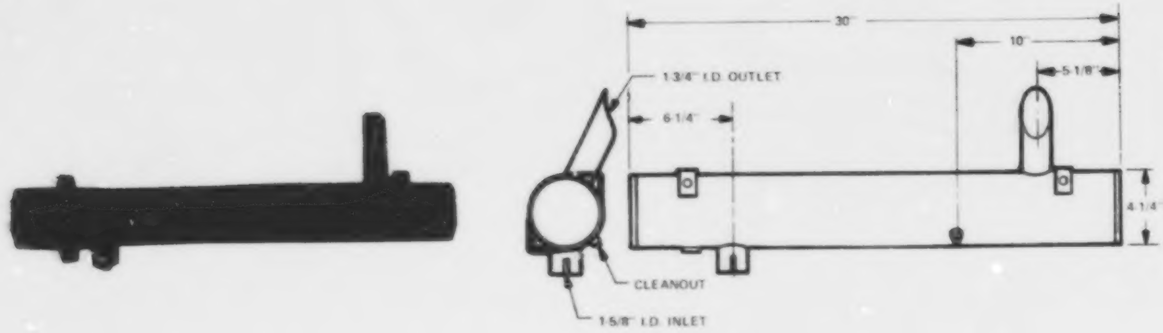
17371


19 3/4"
3 1/4"
13 1/4"
3 1/4"
1 5/8" OD INLET
14 5/8"
12 1/2"
4 1/4"
1 5/8"
CLEAN OUT
CLEAN OUT
MOUNTING BRACKETS
1 3/4" OD OUTLET

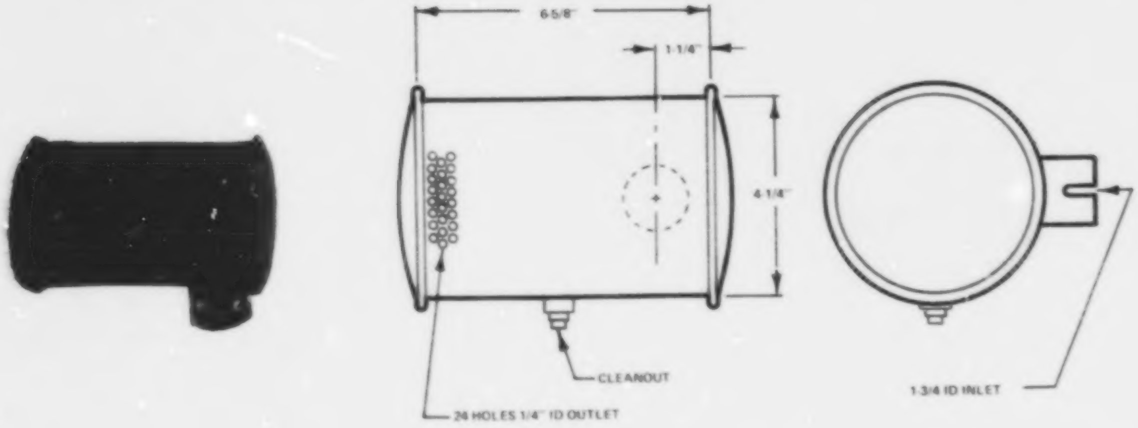
17371

NELSON

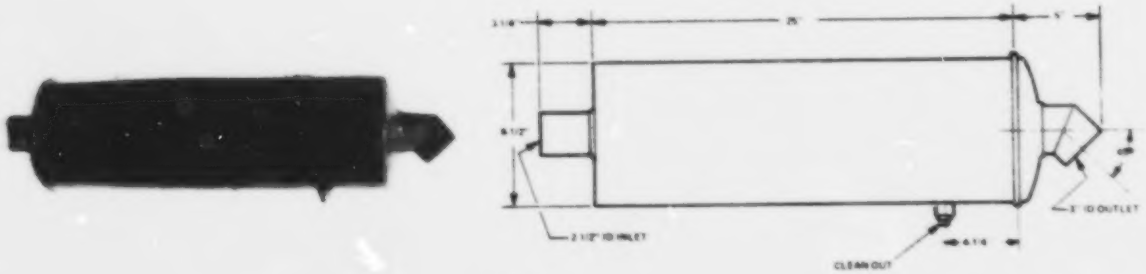
NELSON (Continued)


30"
10"
5-1/8"
1-3/4" I.D. OUTLET
6-1/4"
4-1/4"
CLEANOUT
1-5/8" I.D. INLET

17410

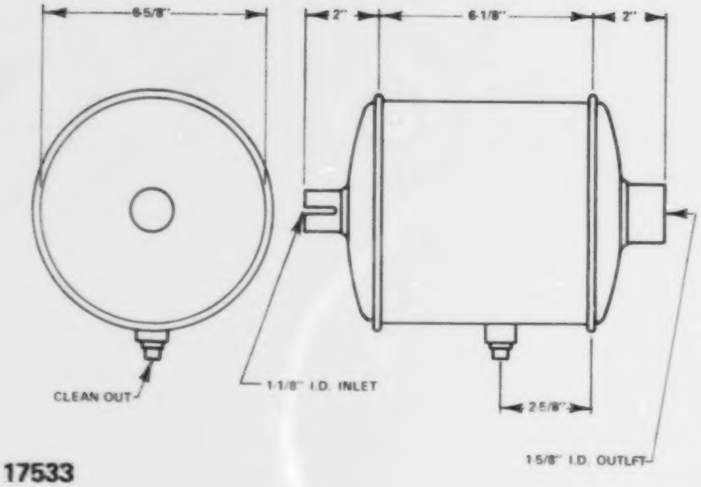

6-5/8"
1-1/4"
4-1/4"
CLEANOUT
24 HOLES 1/4" ID OUTLET
1-3/4 ID INLET

17470

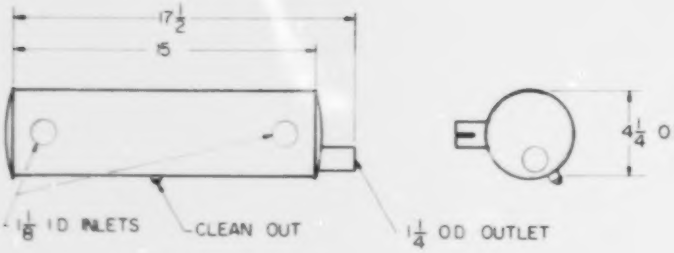

25"
5"
8-1/2"
2-1/2" ID INLET
CLEANOUT
6-1/4
3" ID OUTLET

17480

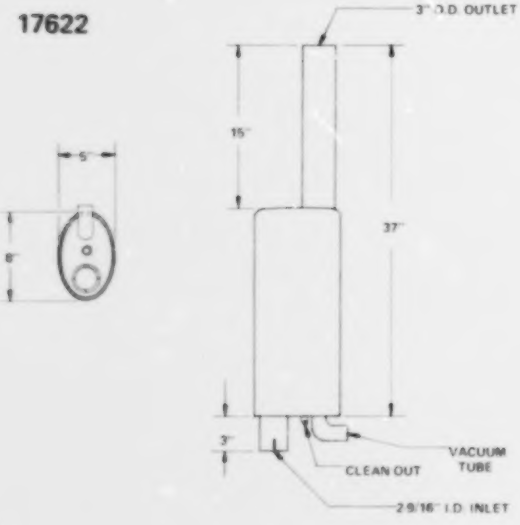
NELSON (Continued)


6-5/8"
2"
6-1/8"
2"
CLEAN OUT
1-1/8" I.D. INLET
2-5/8"
1-5/8" I.D. OUTLET

17533


17 1/2
15
4 1/4 OD
1 1/8 I.D. INLETS
CLEAN OUT
1 1/4 OD OUTLET

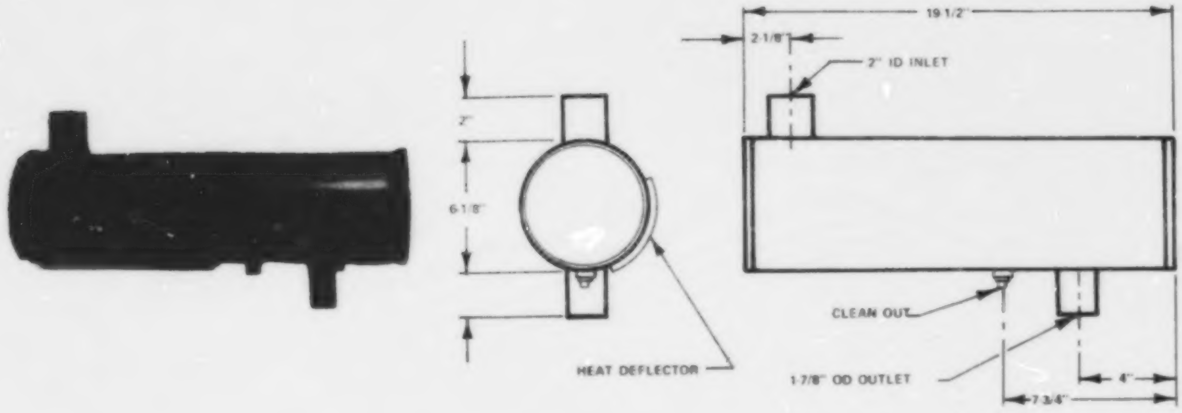
17622


3" O.D. OUTLET
15"
37"
5"
8"
3"
VACUUM TUBE
CLEAN OUT
2-9/16" I.D. INLET

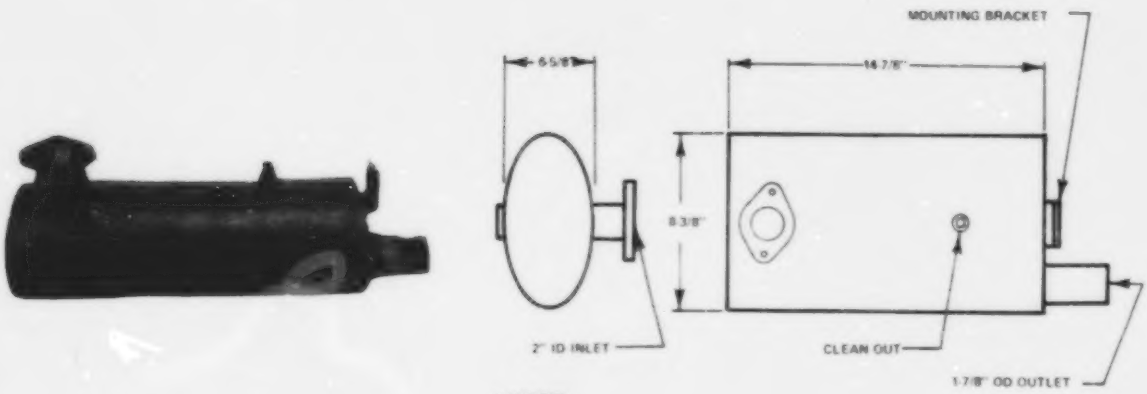
17657

NELSON

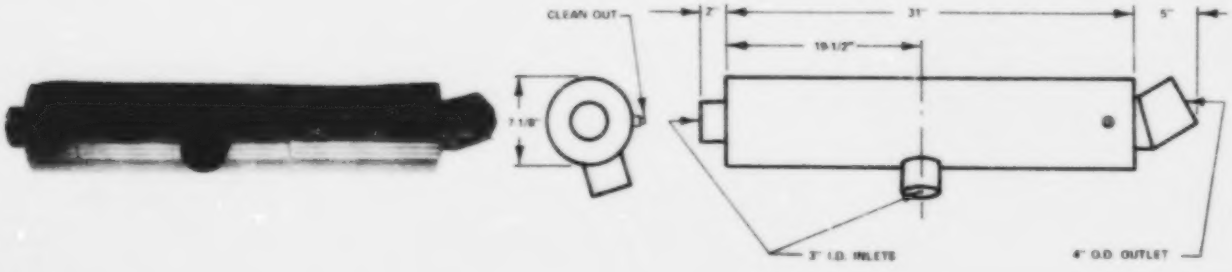
NELSON (Continued)


19-1/2"
2-1/8"
2" ID INLET
2"
6-1/8"
HEAT DEFLECTOR
CLEAN OUT
1-7/8" OD OUTLET
4"
7-3/4"

17674

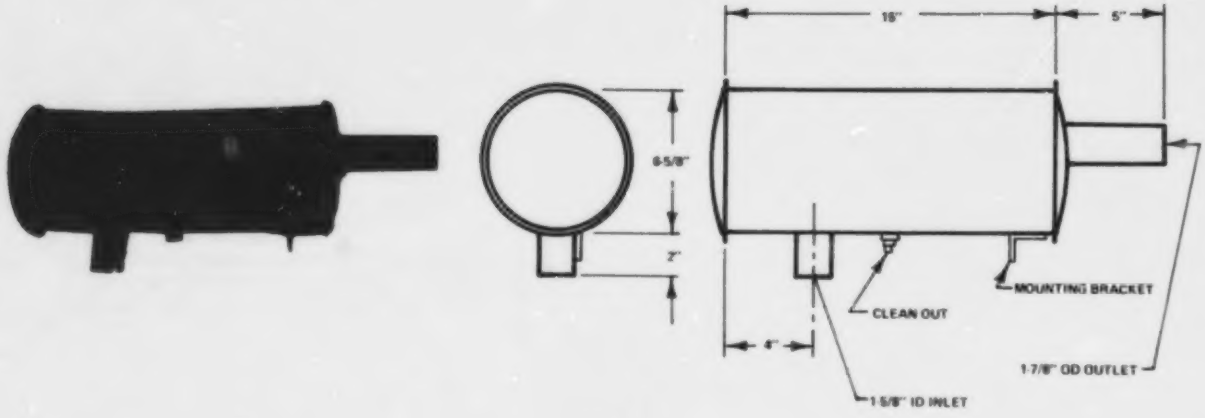

MOUNTING BRACKET
6-5/8"
14-7/8"
8-3/8"
2" ID INLET
CLEAN OUT
1-7/8" OD OUTLET

17695

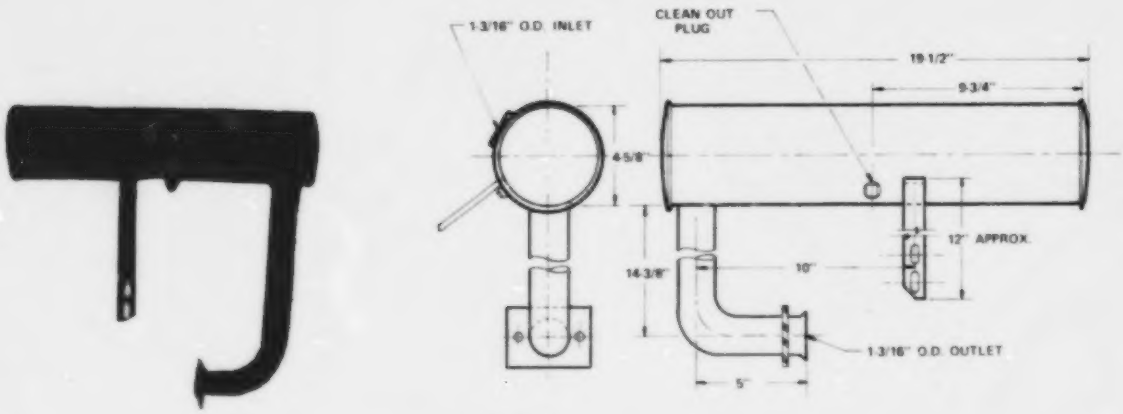

CLEAN OUT
2"
31"
5"
19-1/2"
7-1/8"
3" I.D. INLETS
4" O.D. OUTLET

17701

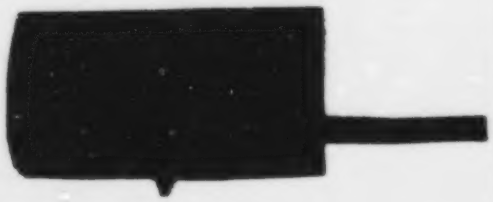
NELSON (Continued)

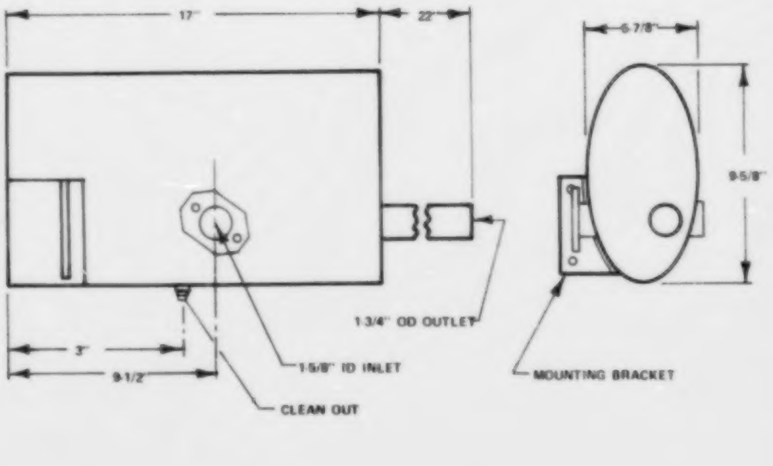

16"
5"
6-5/8"
2"
4"
CLEAN OUT
MOUNTING BRACKET
1-7/8" OD OUTLET
1-5/8" ID INLET

17746


1-3/16" O.D. INLET
CLEAN OUT PLUG
19-1/2"
9-3/4"
4-5/8"
14-3/8"
10"
12" APPROX.
1-3/16" O.D. OUTLET
5"

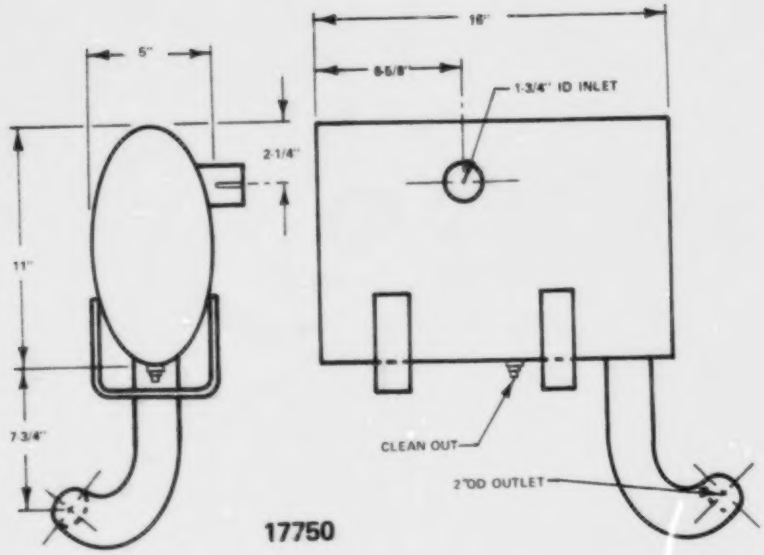
17747



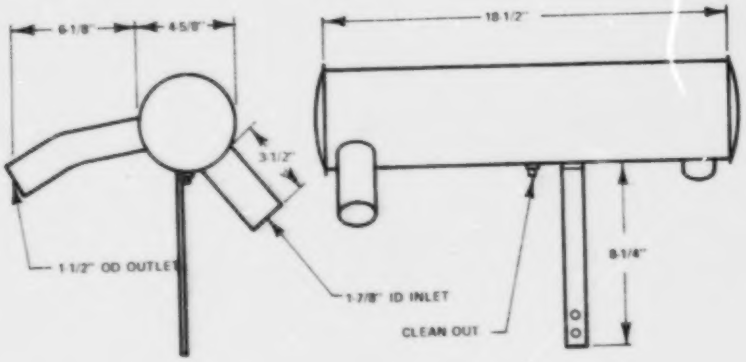

17"
22"
6-7/8"
9-5/8"
1-3/4" OD OUTLET
3"
9-1/2"
1-5/8" ID INLET
CLEAN OUT
MOUNTING BRACKET

17749

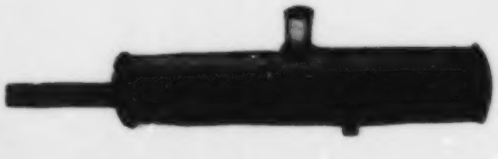
NELSON (Continued)

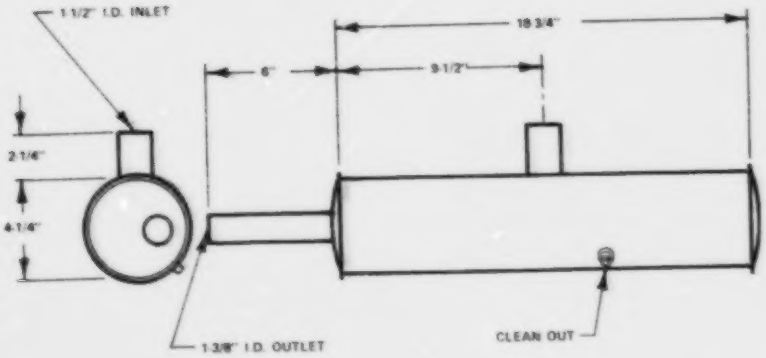

5"
2-1/4"
11"
7-3/4"
16"
8-5/8"
1-3/4" ID INLET
CLEAN OUT
2"OD OUTLET

17750


6-1/8"
4-5/8"
3-1/2"
1-1/2" OD OUTLET
1-7/8" ID INLET
18-1/2"
CLEAN OUT
8-1/4"

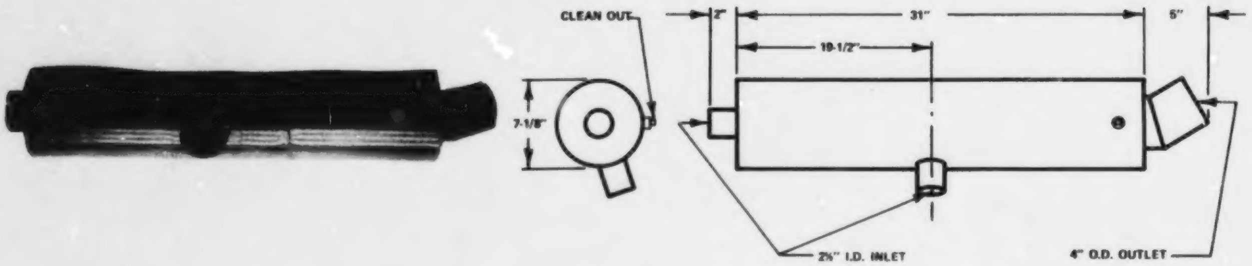
17765



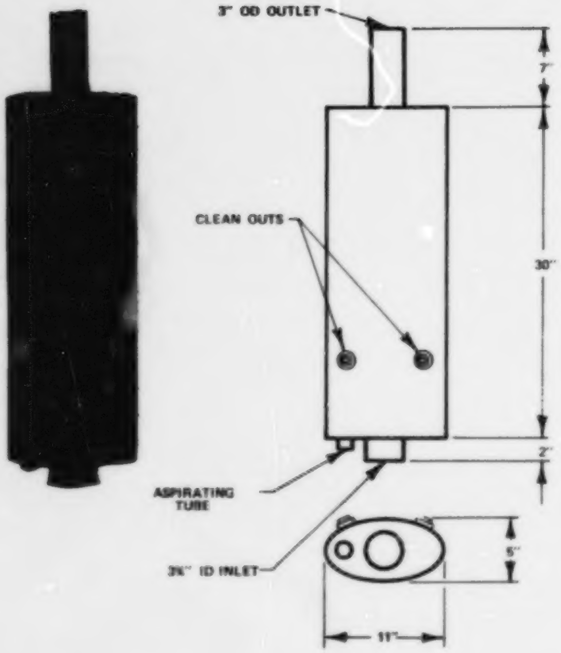

1-1/2" I.D. INLET
2-1/4"
4-1/4"
1-3/8" I.D. OUTLET
6"
18-3/4"
9-1/2"
CLEAN OUT

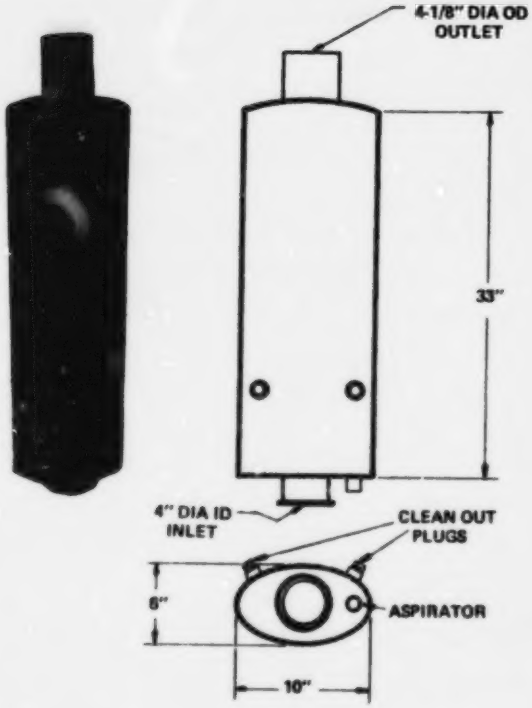
17898

NELSON (Continued)


CLEAN OUT
7-1/8"
2"
31"
5"
19-1/2"
2½" I.D. INLET
4" O.D. OUTLET

17899

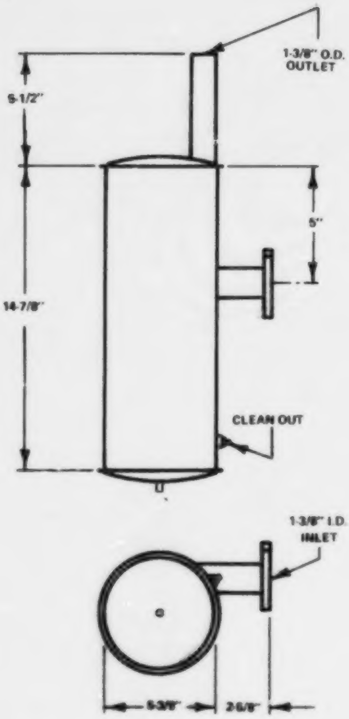

3" OD OUTLET
7"
CLEAN OUTS
30"
2"
ASPIRATING TUBE
3½" ID INLET
5"
11"


4-1/8" DIA OD OUTLET
33"
4" DIA ID INLET
CLEAN OUT PLUGS
6"
ASPIRATOR
10"

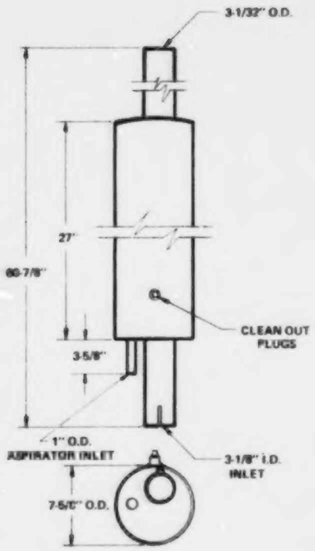
17973

17974

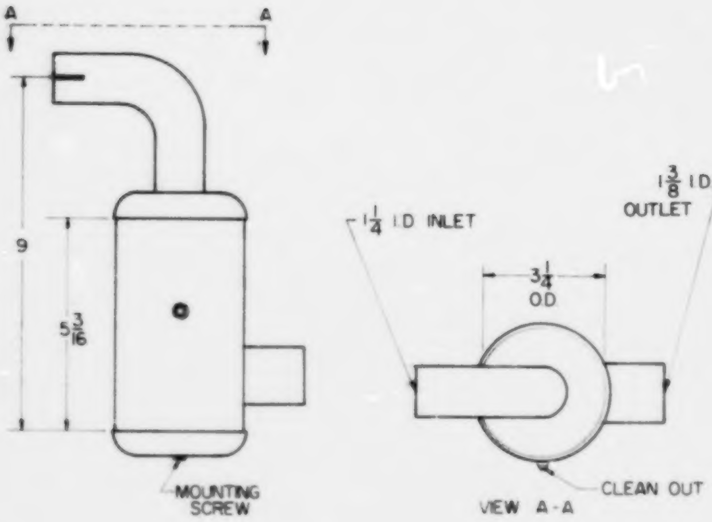
NELSON (Continued)


1-3/8" O.D.
OUTLET
5-1/2"
5"
14-7/8"
CLEAN OUT
1-3/8" I.D.
INLET
5-3/8"
2-5/8"

17998

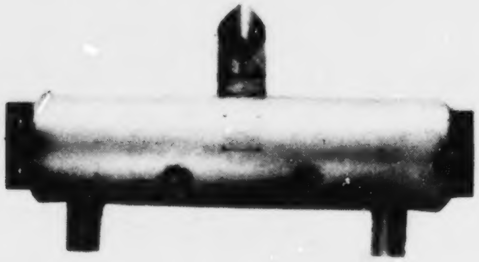

3-1/32" O.D.
27"
60-7/8"
CLEAN OUT
PLUGS
3-5/8"
1" O.D.
ASPIRATOR INLET
3-1/8" I.D.
INLET
7-5/8" O.D.

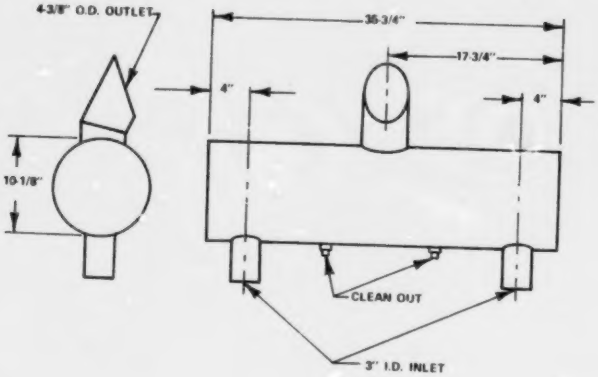
18018


A
A
9
$5\frac{3}{16}$
MOUNTING
SCREW
$1\frac{1}{4}$ I.D. INLET
$1\frac{3}{8}$ I.D.
OUTLET
$3\frac{1}{4}$
O.D
CLEAN OUT
VIEW A-A

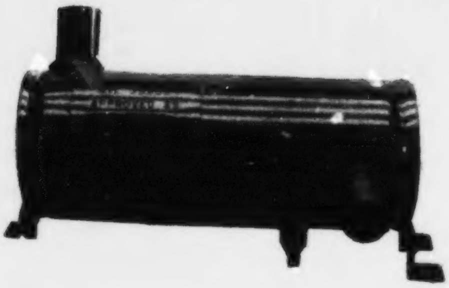
18031

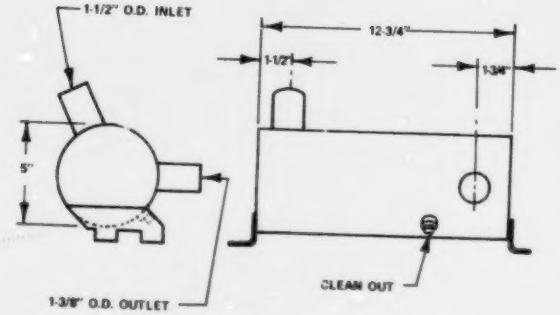
NELSON (Continued)



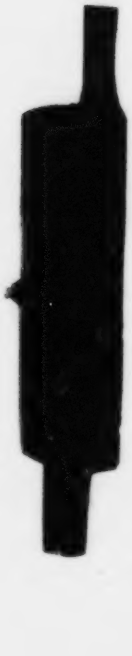

4-3/8" O.D. OUTLET
35-3/4"
17-3/4"
4"
4"
10-1/8"
CLEAN OUT
3" I.D. INLET

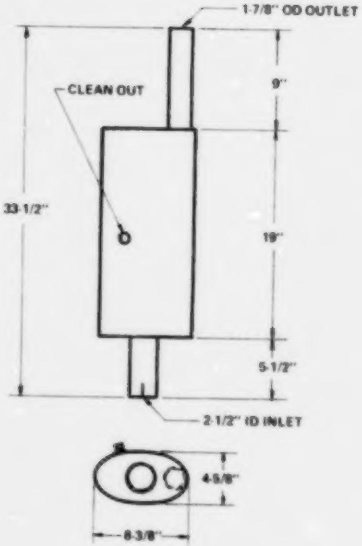
18090




1-1/2" O.D. INLET
12-3/4"
1-1/2"
1-3/4"
5"
1-3/8" O.D. OUTLET
CLEAN OUT

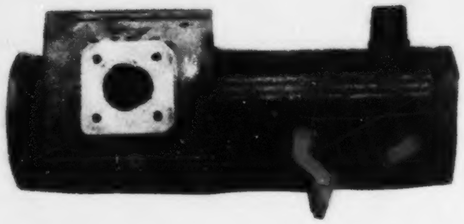
18289

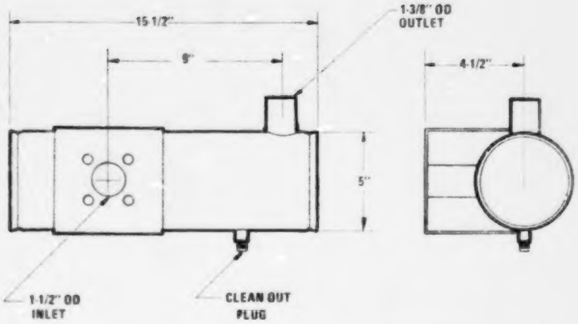



1-7/8" OD OUTLET
CLEAN OUT
9"
33-1/2"
19"
5-1/2"
2-1/2" ID INLET
4-5/8"
8-3/8"

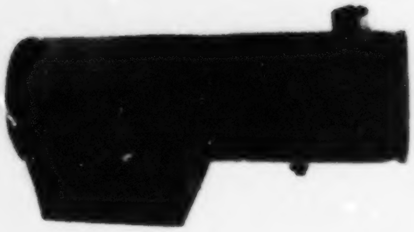
18433

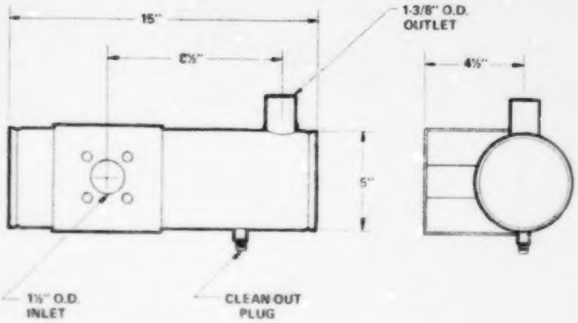
NELSON (Continued)



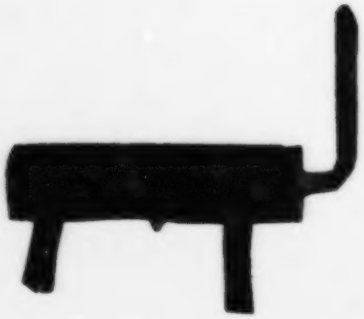

15 1/2"
9"
1-3/8" OD
OUTLET
4-1/2"
5"
1-1/2" OD
INLET
CLEAN OUT
PLUG

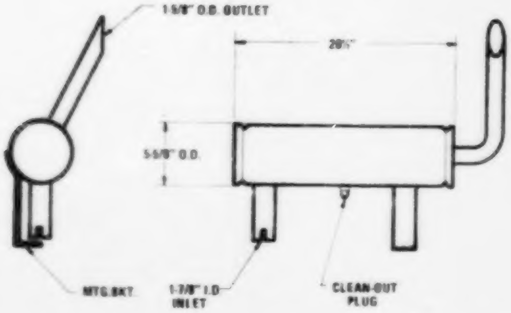
18528




15"
8½"
1-3/8" O.D.
OUTLET
4½"
5"
1½" O.D.
INLET
CLEAN OUT
PLUG

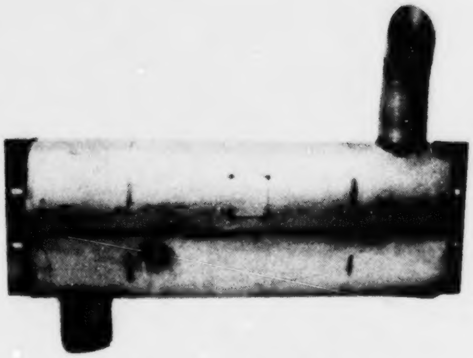
18528-A

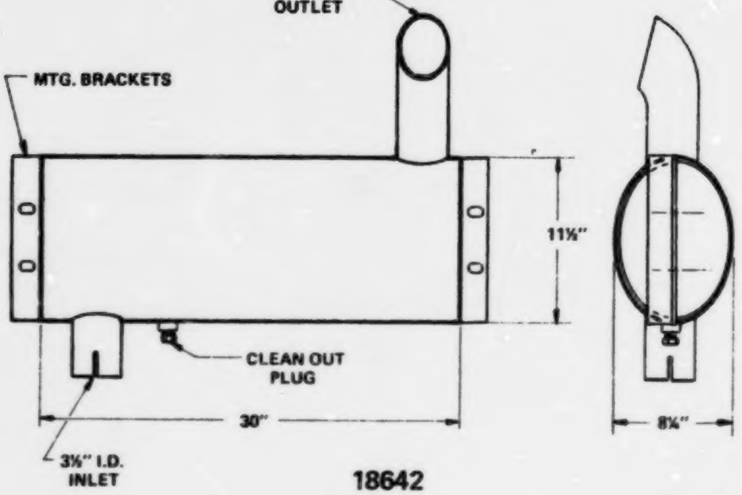



1-5/8" O.D. OUTLET
20½"
5-5/8" O.D.
MTG.BKT.
1-7/8" I.D.
INLET
CLEAN-OUT
PLUG

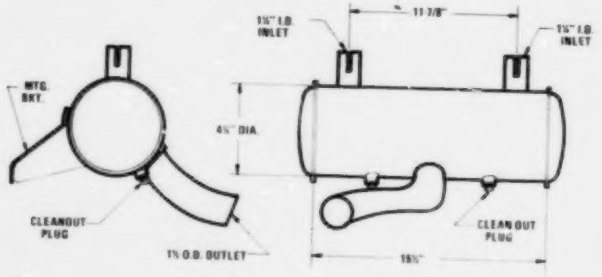
18631

NELSON (Continued)



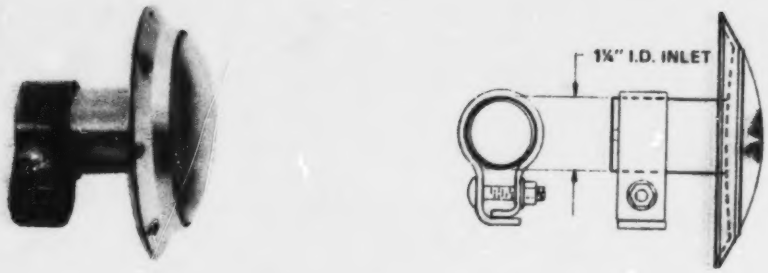

3½" O.D. OUTLET
MTG. BRACKETS
11½"
CLEAN OUT PLUG
30"
3½" I.D. INLET
8¼"

18642

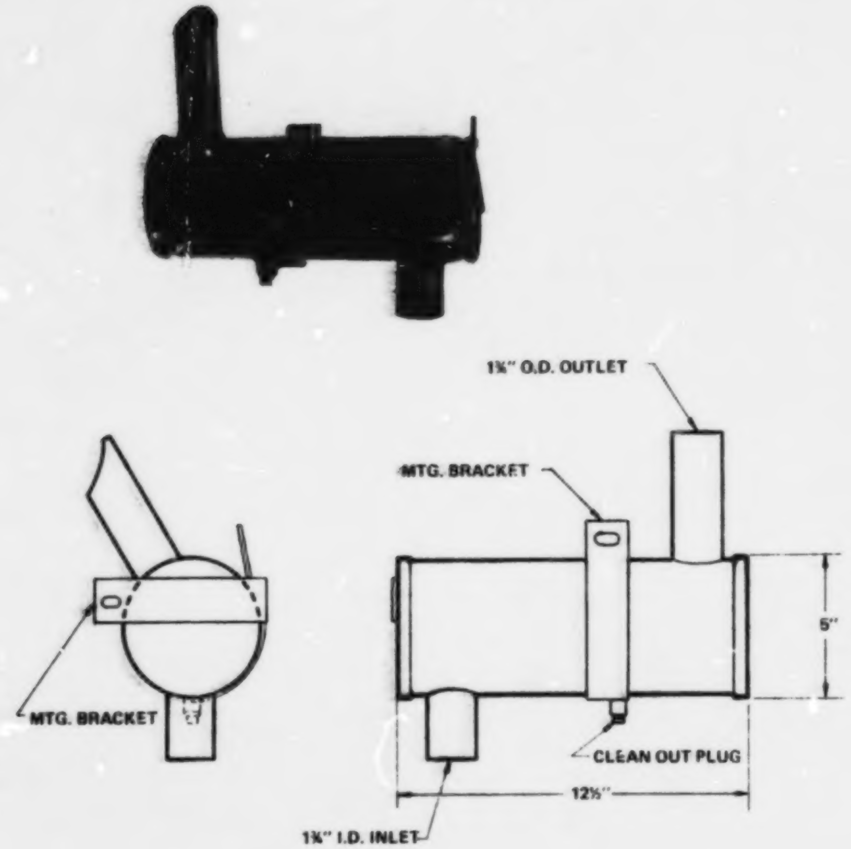

MTG. BKT.
CLEANOUT PLUG
1½ O.D. OUTLET
1½" I.D. INLET
11 7/8"
1½" I.D. INLET
4½" DIA.
CLEAN OUT PLUG
15½"

18731

NELSON (Continued)

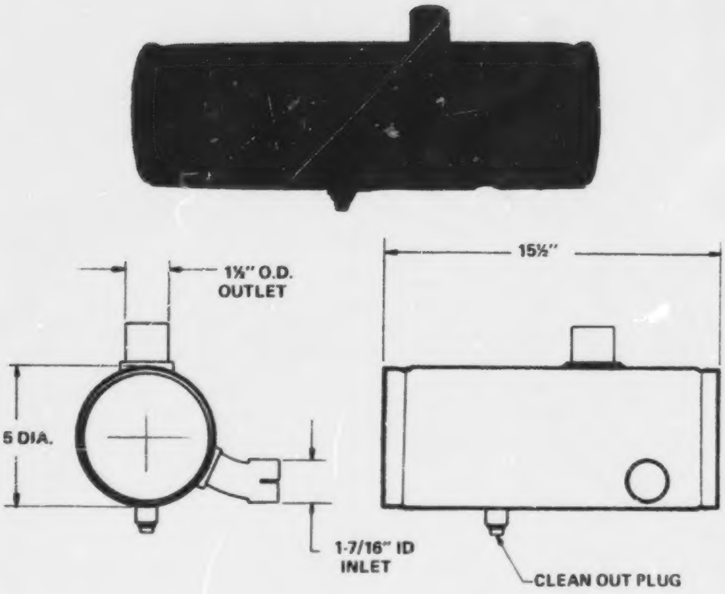


ADAPTER 18753

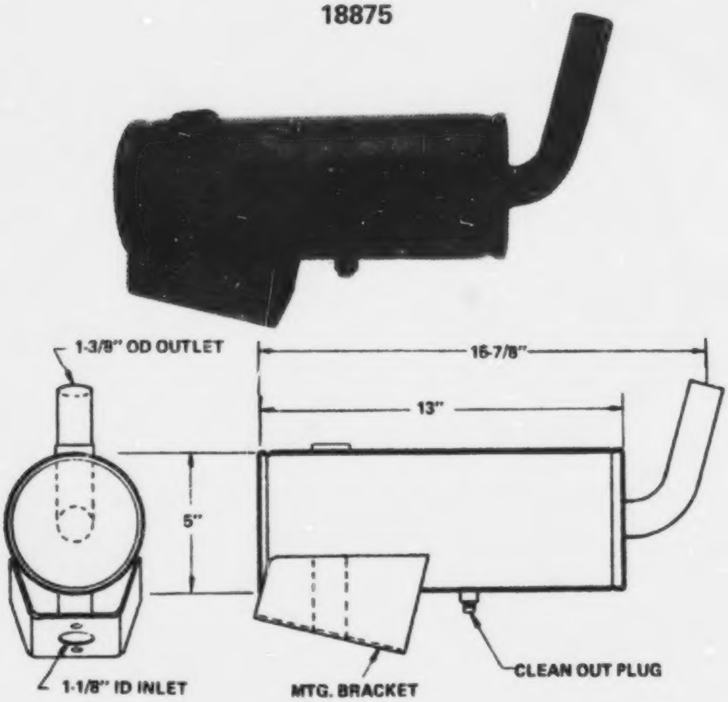

1¾" O.D. OUTLET
MTG. BRACKET
5"
MTG. BRACKET
CLEAN OUT PLUG
12½"
1¾" I.D. INLET

18798

NELSON (Continued)

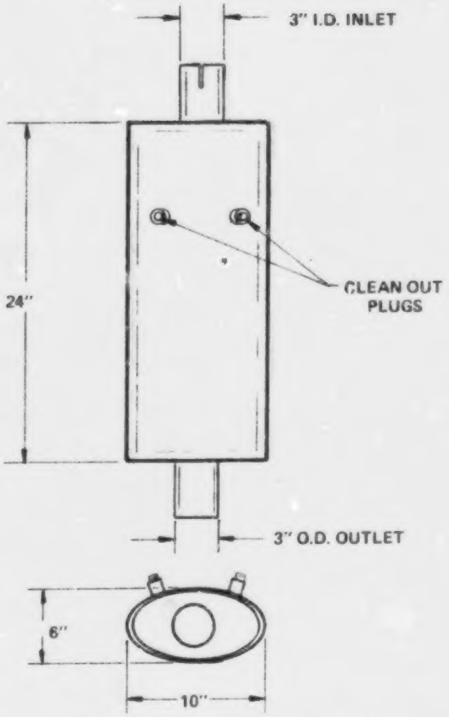

1½" O.D.
OUTLET
15½"
5 DIA.
1-7/16" ID
INLET
CLEAN OUT PLUG

18875


1-3/8" OD OUTLET
16-7/8"
13"
5"
1-1/8" ID INLET
MTG. BRACKET
CLEAN OUT PLUG

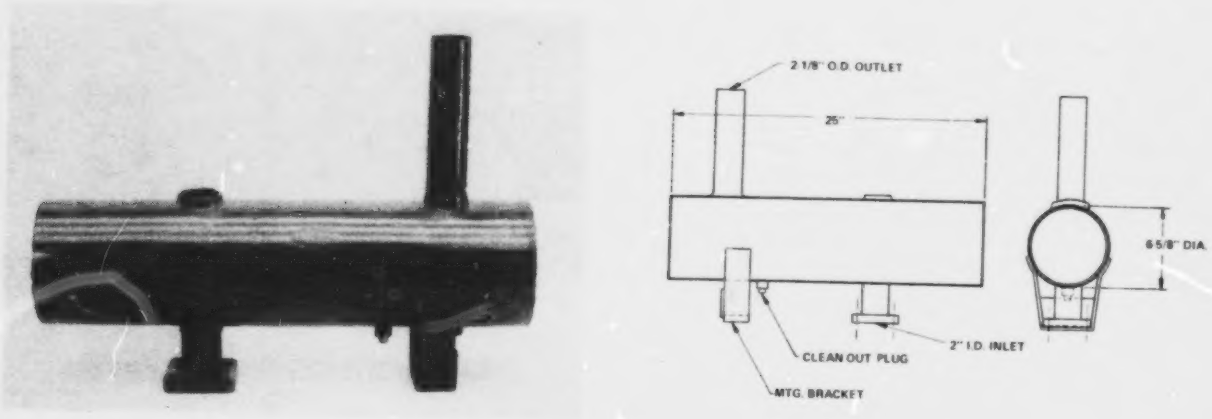
18885

NELSON (Continued)

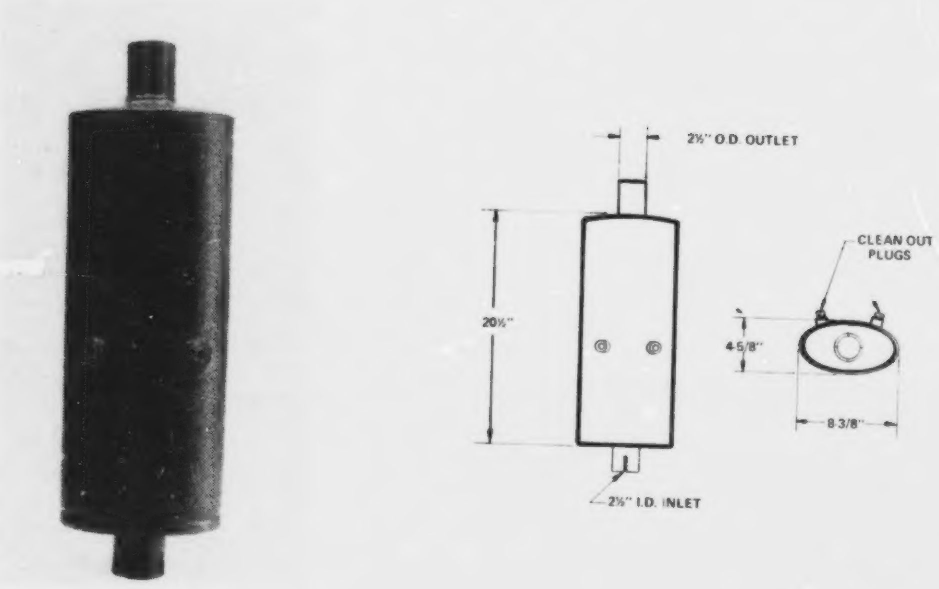

3" I.D. INLET
24"
CLEAN OUT PLUGS
3" O.D. OUTLET
6"
10"

19125

NELSON (Continued)

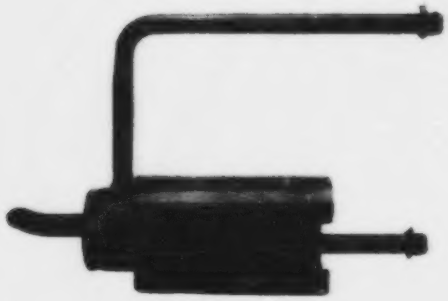

2 1/8" O.D. OUTLET
25"
6-5/8" DIA.
2" I.D. INLET
CLEAN OUT PLUG
MTG. BRACKET

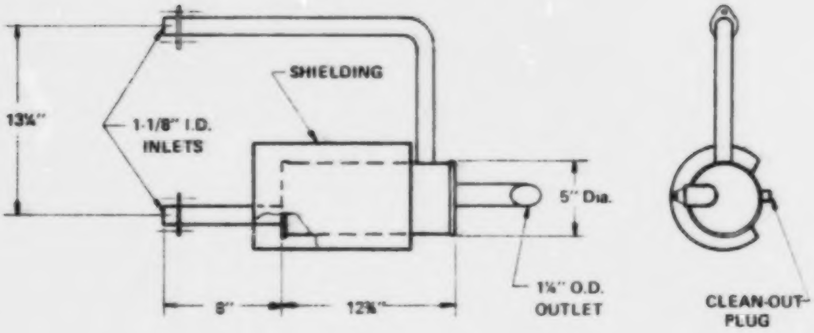
19005


2½" O.D. OUTLET
CLEAN OUT PLUGS
20½"
4-5/8"
8 3/8"
2½" I.D. INLET

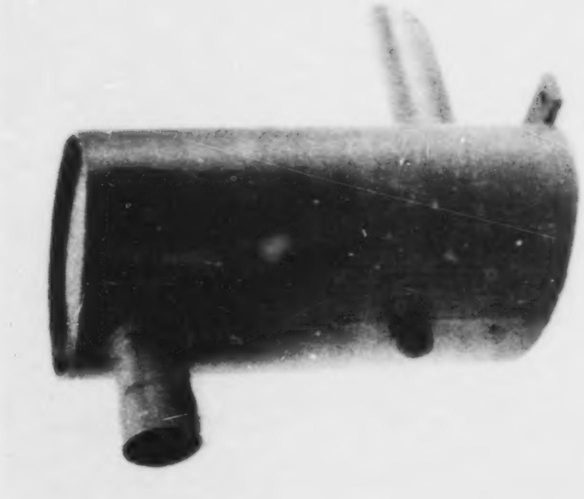
19126

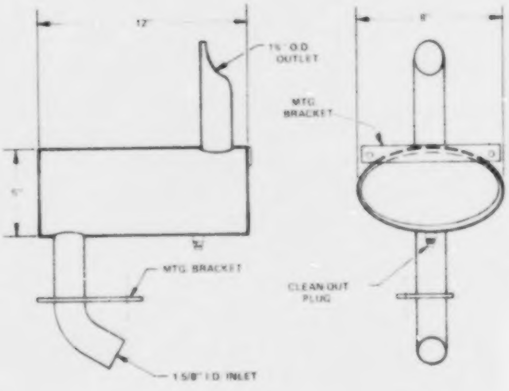
NELSON (Continued)




13¾"
1-1/8" I.D.
INLETS
SHIELDING
5" Dia.
1¼" O.D.
OUTLET
8"
12¾"
CLEAN-OUT-
PLUG

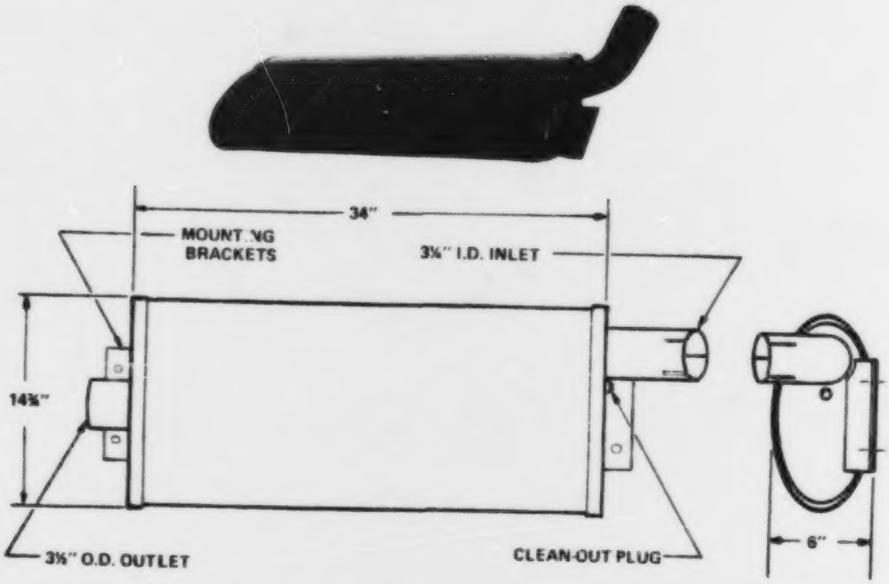
19139



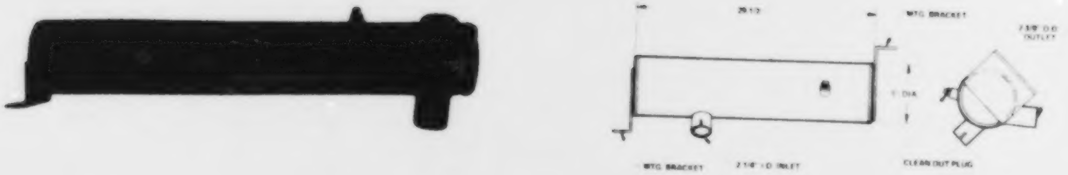

12"
1½" O.D.
OUTLET
5"
MTG BRACKET
1 5/8" I.D. INLET
8"
MTG
BRACKET
CLEAN OUT
PLUG

19382

NELSON (Continued)

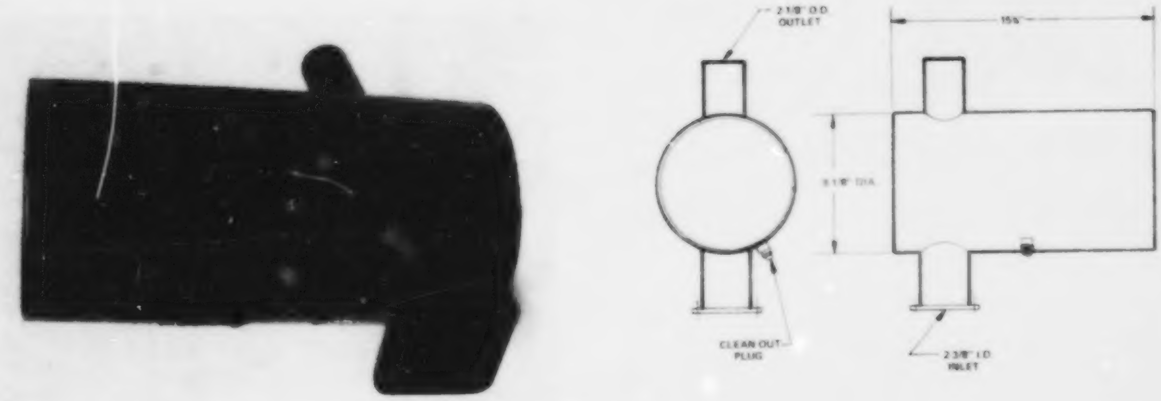

34"
MOUNTING BRACKETS
3⅝" I.D. INLET
14⅝"
3½" O.D. OUTLET
CLEAN-OUT PLUG
6"

19453

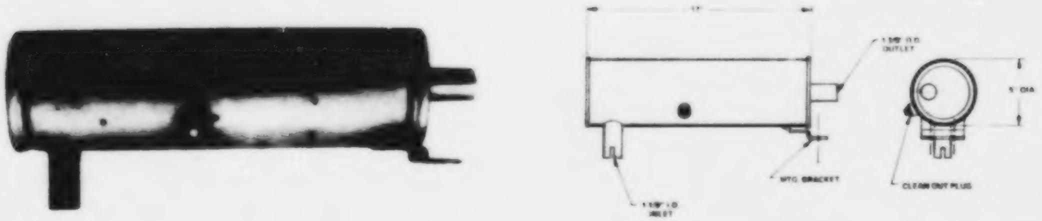

29 1/2
MTG. BRACKET
2 3/8" O.D. OUTLET
7" DIA
MTG. BRACKET
2 1/8" I.D. INLET
CLEAN OUT PLUG

19578

NELSON (Continued)

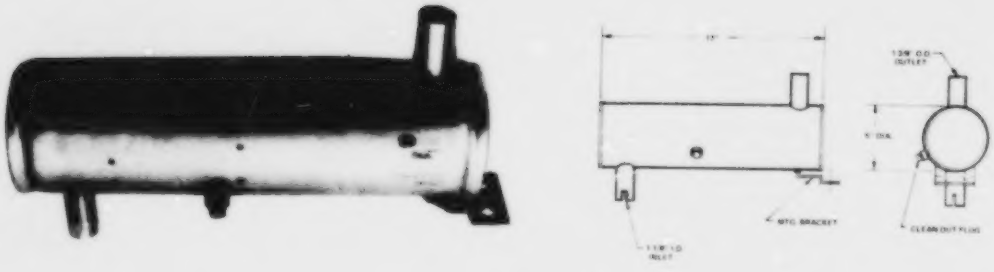

2 1/8" O.D.
OUTLET
15¾"
9 1/8" DIA.
CLEAN OUT
PLUG
2 3/8" I.D.
INLET

19705

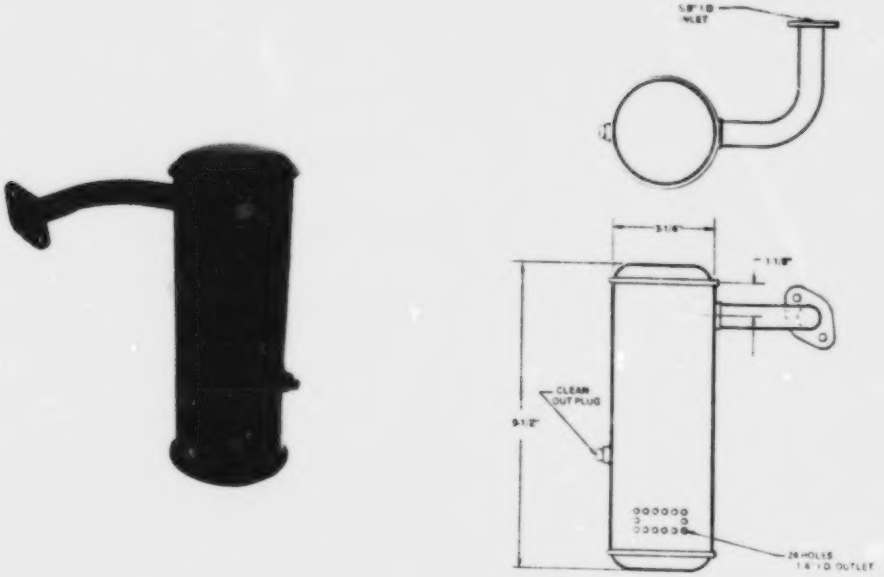

17"
1 3/8" O.D.
OUTLET
5" DIA
MTG. BRACKET
CLEAN OUT PLUG
1 1/8" I.D.
INLET

19820

NELSON (Continued)

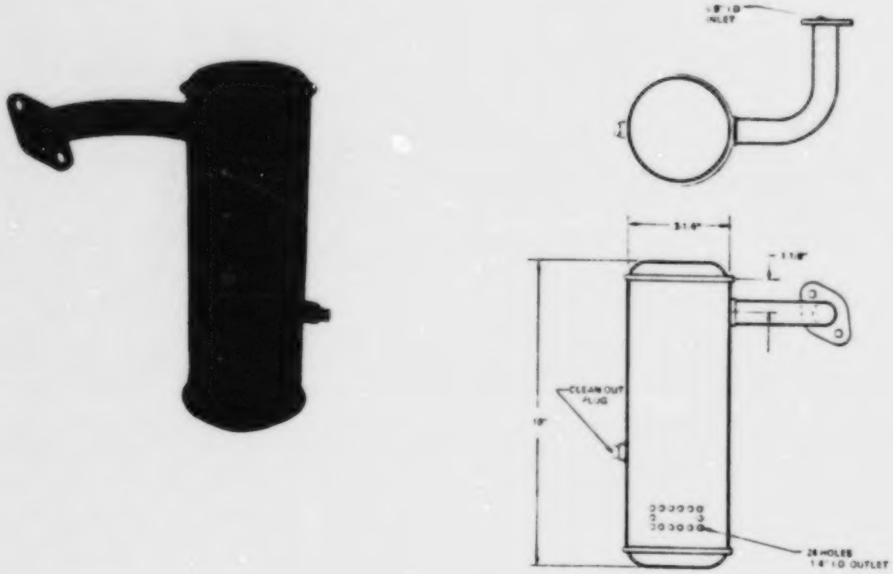

17"
1-3/8" O.D. OUTLET
5" DIA.
MTG. BRACKET
CLEANOUT PLUG
1-1/8" I.D. INLET

19822

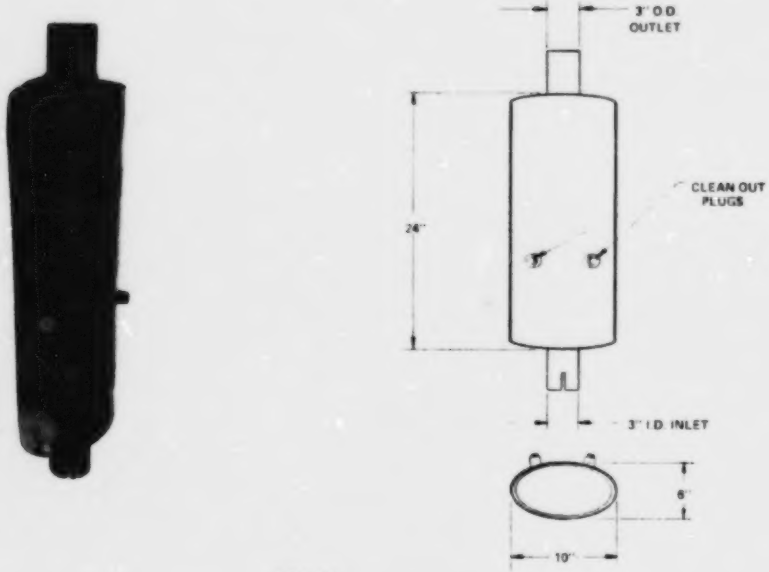

5/8" I.D. INLET
3-1/4"
1-1/8"
CLEAN OUT PLUG
9-1/2"
26 HOLES 1/4" I.D. OUTLET

19825

NELSON (Continued)

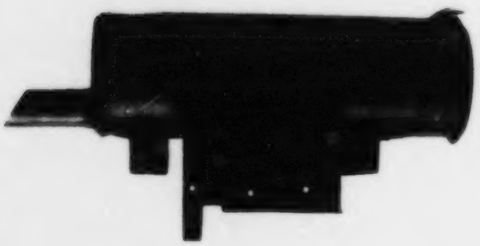

I.D.
INLET
3 1/4"
1 1/8"
CLEAN OUT
PLUG
10"
24 HOLES
1/4" I.D. OUTLET

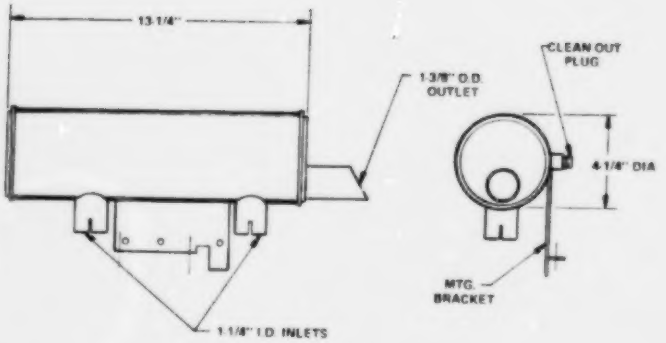
19826


3" O.D.
OUTLET
CLEAN OUT
PLUGS
24"
3" I.D. INLET
6"
10"

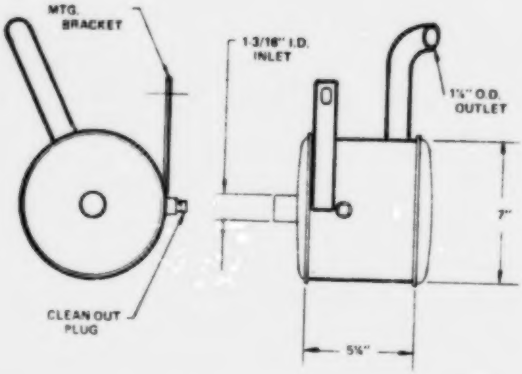
19830

NELSON (Continued)

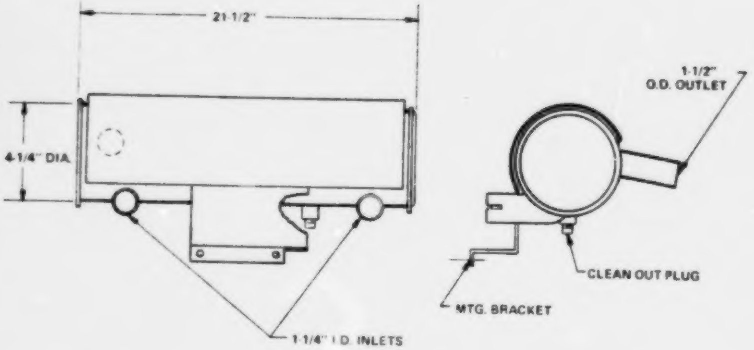



13-1/4"
1-3/8" O.D.
OUTLET
CLEAN OUT
PLUG
4-1/4" DIA
MTG.
BRACKET
1-1/4" I.D. INLETS

19941

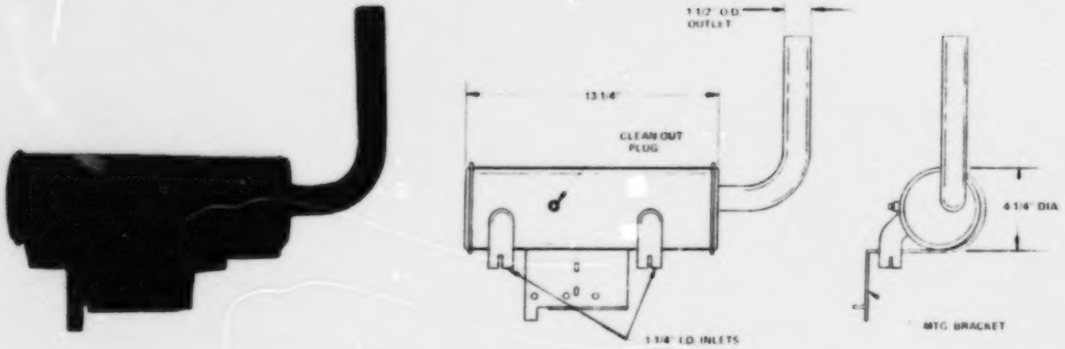

MTG.
BRACKET
1-3/16" I.D.
INLET
1¼" O.D.
OUTLET
7"
CLEAN OUT
PLUG
5¼"

19973

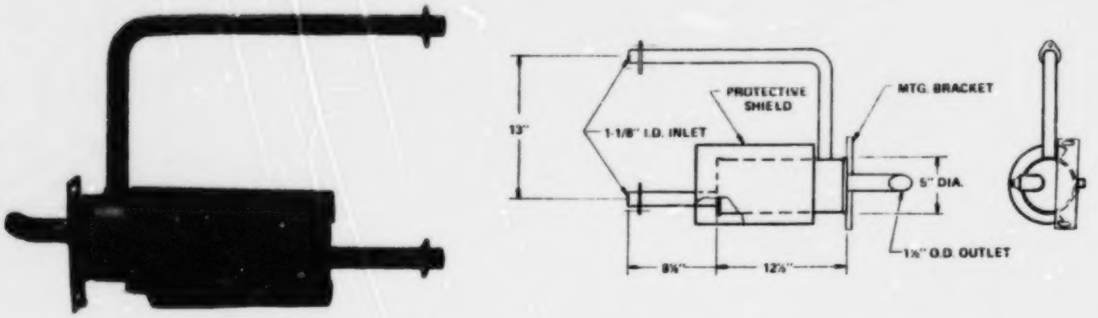

21-1/2"
4-1/4" DIA.
1-1/2"
O.D. OUTLET
CLEAN OUT PLUG
MTG. BRACKET
1-1/4" I.D. INLETS

19975

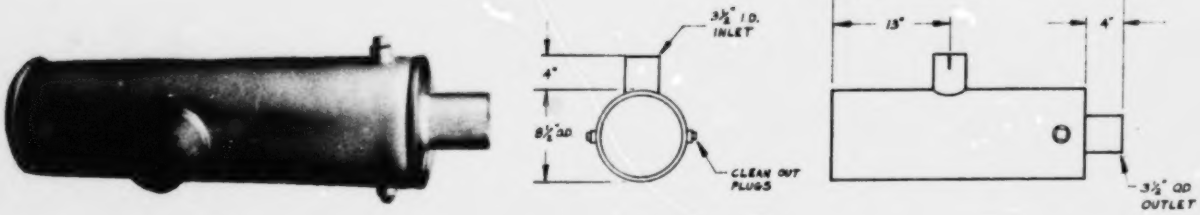
NELSON (Continued)


1 1/2" O.D. OUTLET
13 1/4"
CLEAN OUT PLUG
4 1/4" DIA
1 1/4" I.D. INLETS
MTG BRACKET

19976

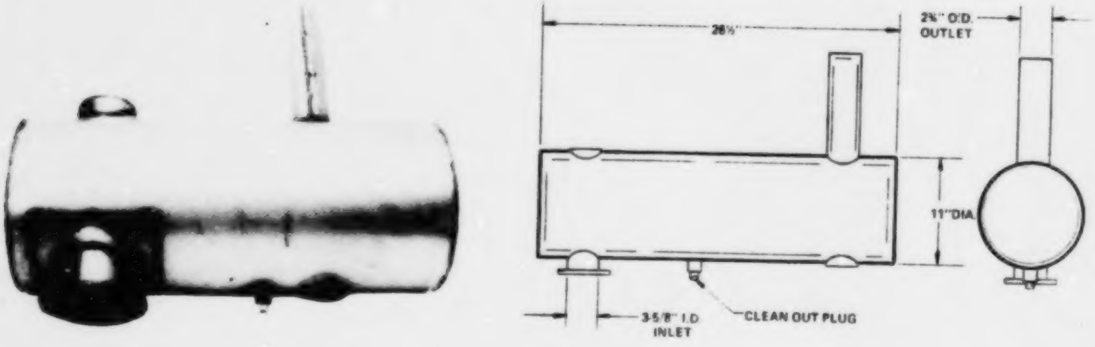

13"
1-1/8" I.D. INLET
PROTECTIVE SHIELD
MTG. BRACKET
5" DIA.
1½" O.D. OUTLET
8½"
12½"

19994

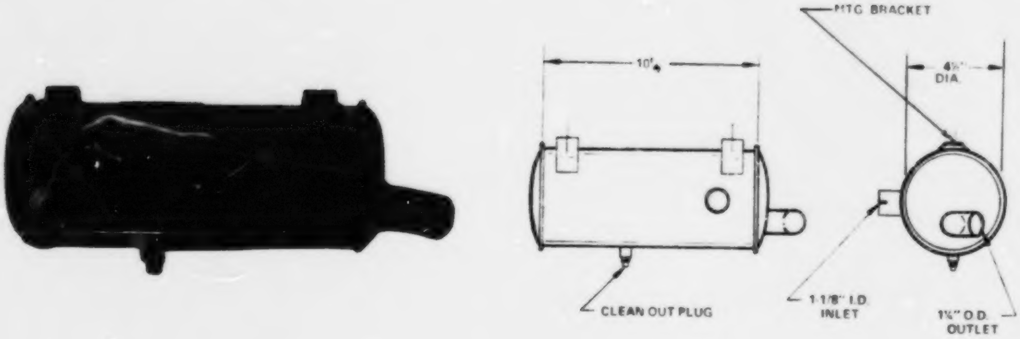

3½" I.D. INLET
4"
8½" OD
CLEAN OUT PLUGS
32"
13"
4"
3½" OD OUTLET

20069

NELSON (Continued)

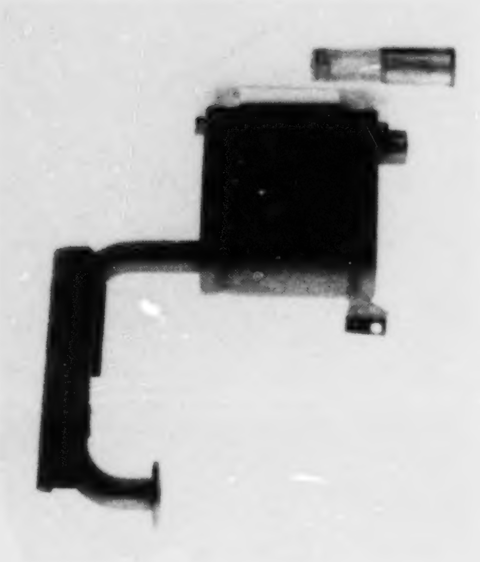

28½"
2¾" O.D.
OUTLET
11"DIA.
3-5/8" I.D.
INLET
CLEAN OUT PLUG

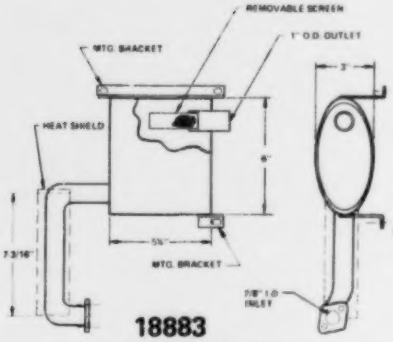
20072


MTG BRACKET
10¼
4½"
DIA.
CLEAN OUT PLUG
1-1/8" I.D.
INLET
1¼" O.D.
OUTLET

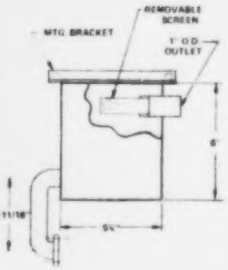
20147

NELSON (Continued)



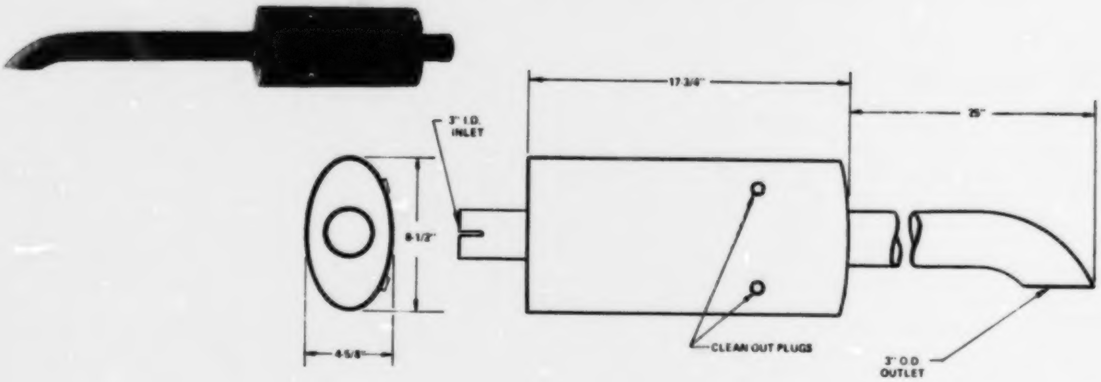

REMOVABLE SCREEN
MTG. BRACKET
1" O.D. OUTLET
HEAT SHIELD
3"
6"
7-3/16"
5¼"
MTG. BRACKET
7/8" I.D. INLET

18883
Muffler Body


MTG. BRACKET
REMOVABLE SCREEN
1" O.D. OUTLET
6"
4-11/16"
5¼"

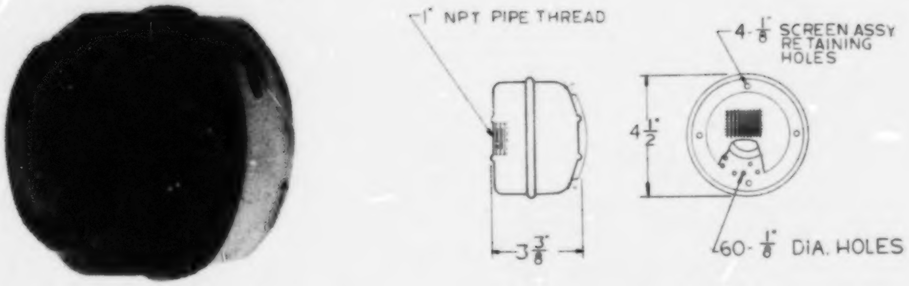
18882
Muffler Body

25766 Screen Assembly

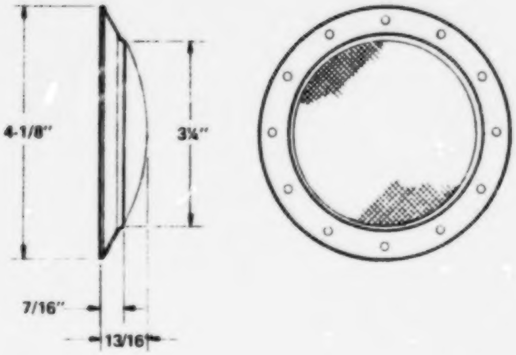

17-3/4"
25"
3" I.D. INLET
6-1/2"
4-5/8"
CLEAN OUT PLUGS
3" O.D. OUTLET

30134

NELSON (Continued)

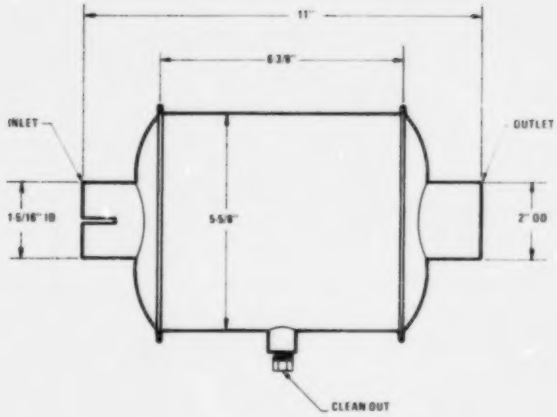

1" NPT PIPE THREAD
4-1/8" SCREEN ASSY RETAINING HOLES
4 1/2"
3 3/8"
60-1/8" DIA. HOLES

35347

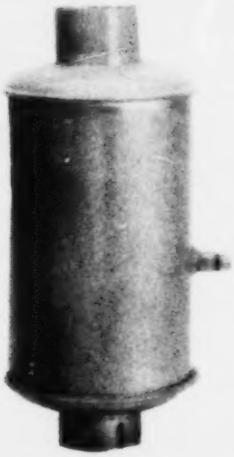

4-1/8"
3¼"
7/16"
13/16

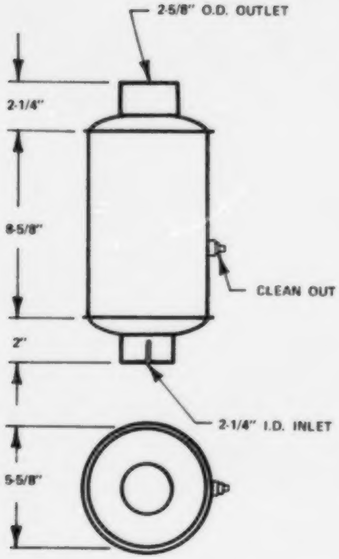
35347
Screen Assembly

NELSON (Continued)


11"
6-3/8"
INLET
OUTLET
1-5/16" ID
5-5/8"
2" OD
CLEAN OUT

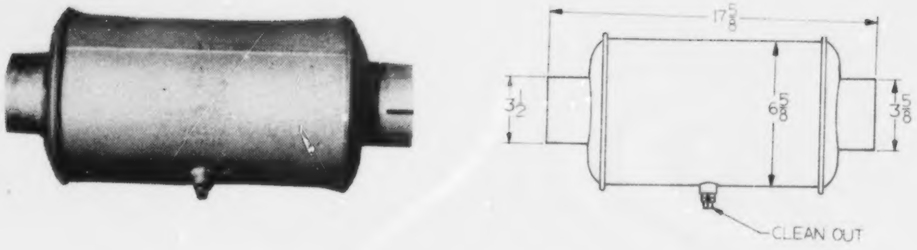
49119



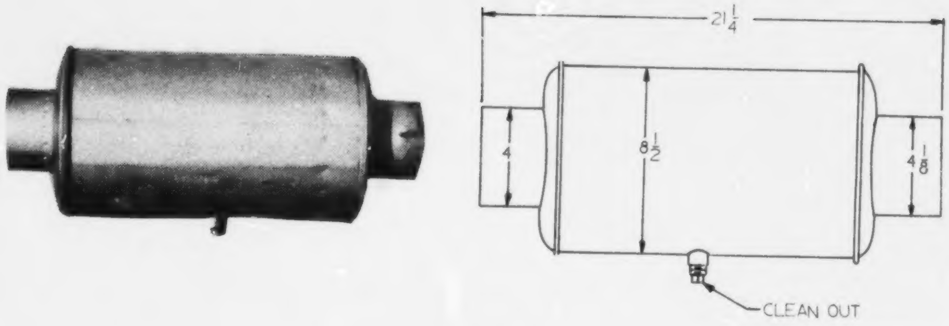

2-5/8" O.D. OUTLET
2-1/4"
8-5/8"
CLEAN OUT
2"
2-1/4" I.D. INLET
5-5/8"

49124

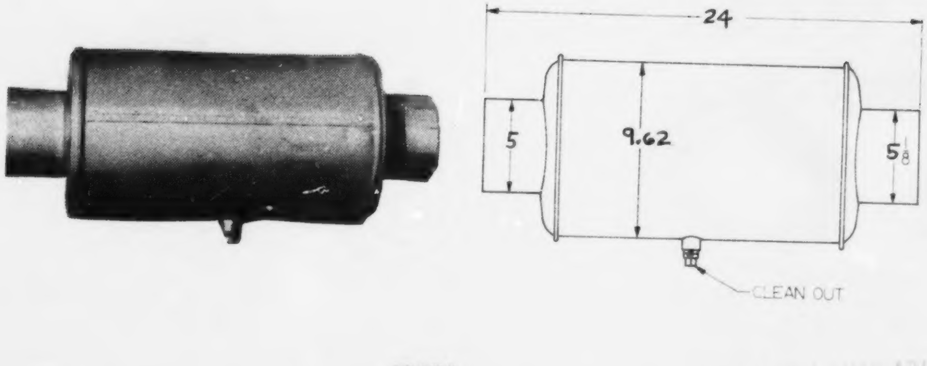
NELSON (Continued)


17 5/8
3 1/2
6 5/8
3 5/8
CLEAN OUT

49135


21 1/4
4
8 1/2
4 1/8
CLEAN OUT

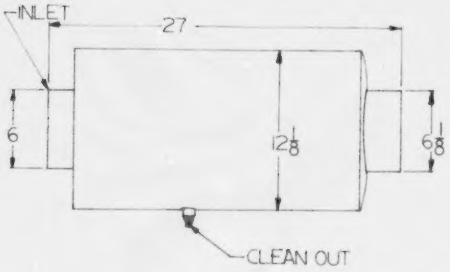
49140


24
5
9.62
5 1/8
CLEAN OUT

49150

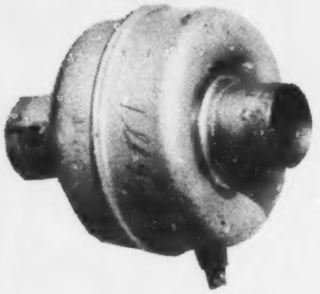
NELSON (Continued)

49160

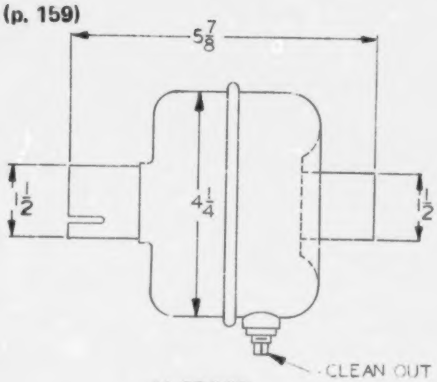

INLET
27
6
12 1/8
6 1/8
CLEAN OUT

49160

U-49110 SEE T-9458 (p. 134)
U-49114 SEE T-14123 (p. 159)

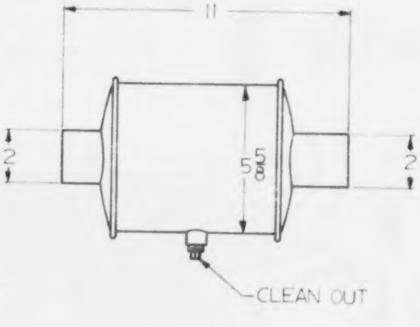


U-49115


5 7/8
1 1/2
4 1/4
1 1/2
CLEAN OUT

U-49115

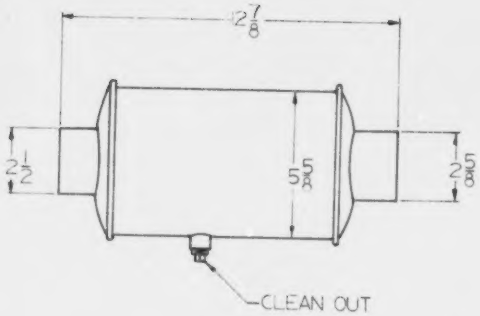
U-49120


11
2
5 5/8
2
CLEAN OUT

U-49120

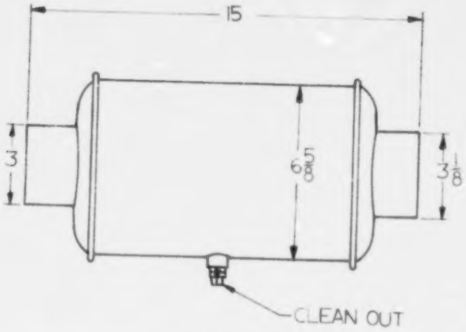
NELSON (Continued)

U-49125


12 7/8
2 1/2
5 5/8
2 5/8
CLEAN OUT

U-49125

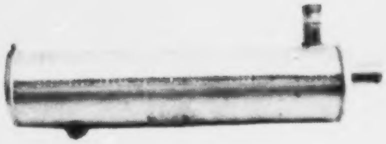
U-49130


15
3
6 5/8
3 1/8
CLEAN OUT

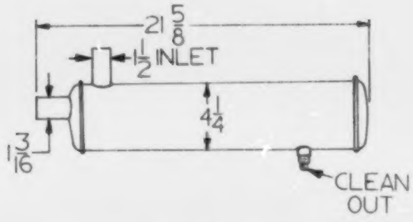
U-49130

ONAN DIVISION

155-1254 SEE NELSON T-12863 (p. 147)
155-1258 SEE NELSON T-12825F (p. 147)

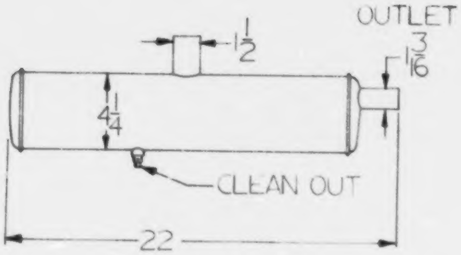


155-1485


21 5/8
1 1/2 INLET
4 1/4
1 3/16
CLEAN OUT

155-1485

155-1520

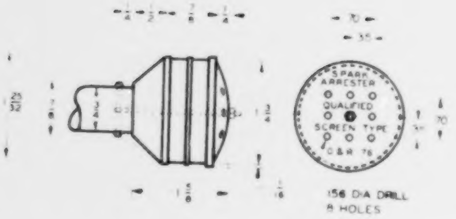

OUTLET
1 1/2
1 3/16
4 1/4
CLEAN OUT
22

155-1520

FOR 155-1698 SEE NELSON 16752 (p. 183)

O & R ENGINES, INC.

O & R 76

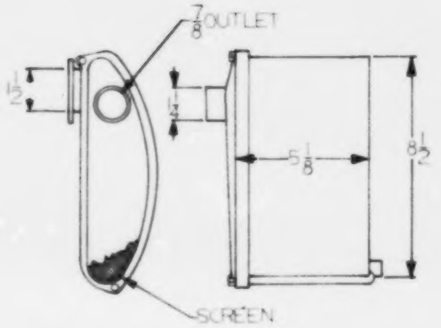

1/4
1/2
7/8
1/4
1 25/32
7/8
3/4
1 3/4
1 5/8
1/16
70
35
SPARK ARRESTER
QUALIFIED
SCREEN TYPE
O & R 76
70
156 DIA DRILL
8 HOLES

O & R 76

PACIFIC PUMPER

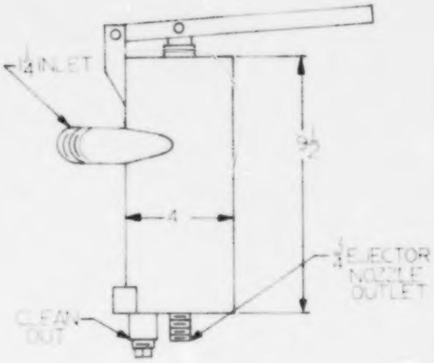
PACIFIC PUMPER

MODEL 2


7/8 OUTLET
1 1/2
1 1/4
5 1/8
8 1/2
SCREEN

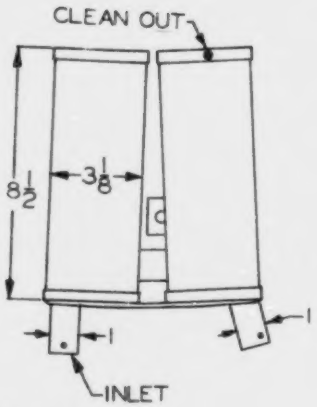
MODEL 2

D-4479


1 1/4 INLET
9 1/2
4
1/4 EJECTOR NOZZLE OUTLET
CLEAN OUT

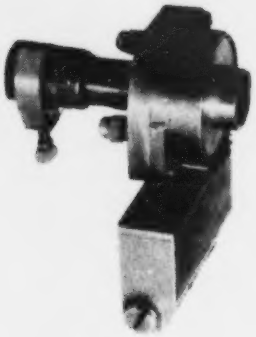
D-4479

RALPH ELECTRIC PLANTS, INC.

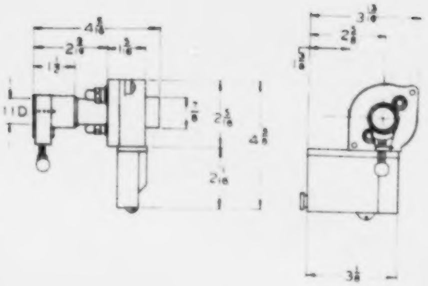

CLEAN OUT
8 1/2
3 1/8
1
1
INLET

PKM II—SPECIAL PURPOSE 37.5

POWELL — POWELL BROTHERS



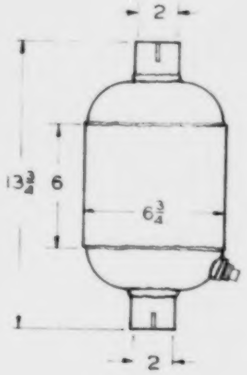
NO. "F"


4 5/16
2 3/16
1 3/16
1 1/2
11 D
7/8
2 5/16
4 3/8
2 1/16
3 13/16
2 3/8
1 3/8
3 1/8

NO. "F"

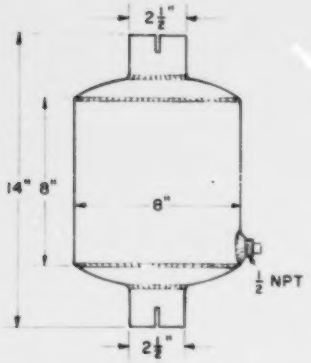
RIKER – RIKER MANUFACTURING COMPANY

SA-200

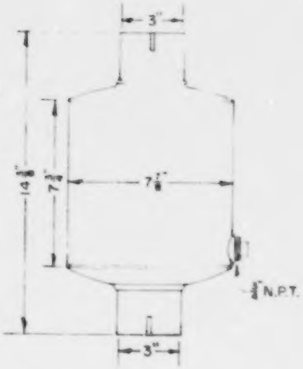

2
13 3/4
6
6 3/4
2

SA-200

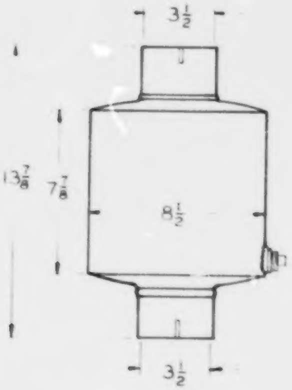
SA-250


2 1/2"
14"
8"
8"
1/2 NPT
2 1/2"

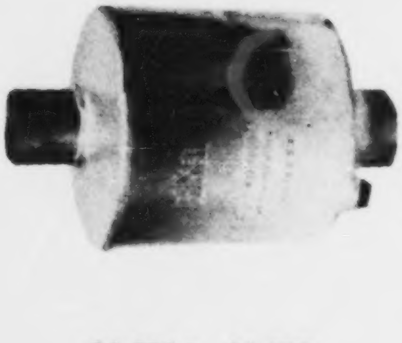
SA-250


3"
14 3/8"
7 3/4"
7 7/8"
3/4" N.P.T.
3"

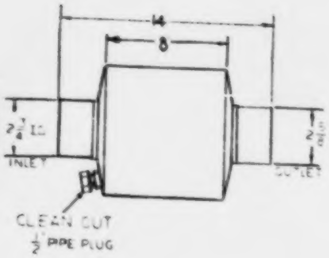
SA-300


3 1/2
13 7/8
7 7/8
8 1/2
3 1/2

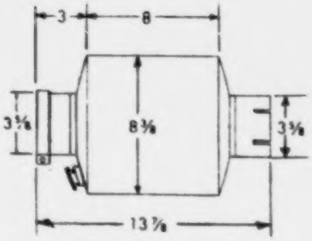
SA-350



SA-350-1 SA-353


14
8
2 7/8 I.D.
INLET
2 5/8 I.D.
OUTLET
CLEAN OUT
1/2" PIPE PLUG

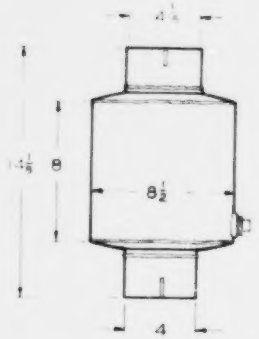
SA-350-1


3
8
3 5/8
8 5/8
3 5/8
13 7/8

SA-353

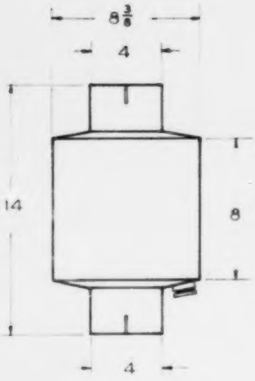
RIKER (Continued)

SA-400


4 1/4
14 1/8
8
8 1/2
4

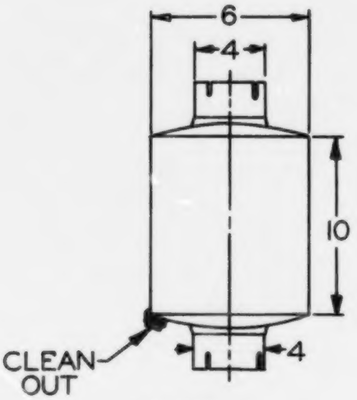
SA-400 & SA-400A

SA-401

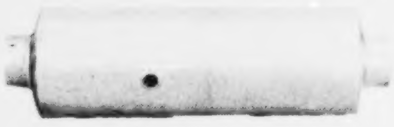


SA-401

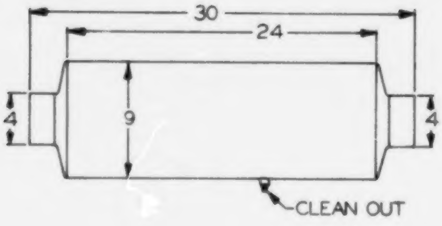
SA-408


6
4
10
CLEAN OUT
4

SA-408

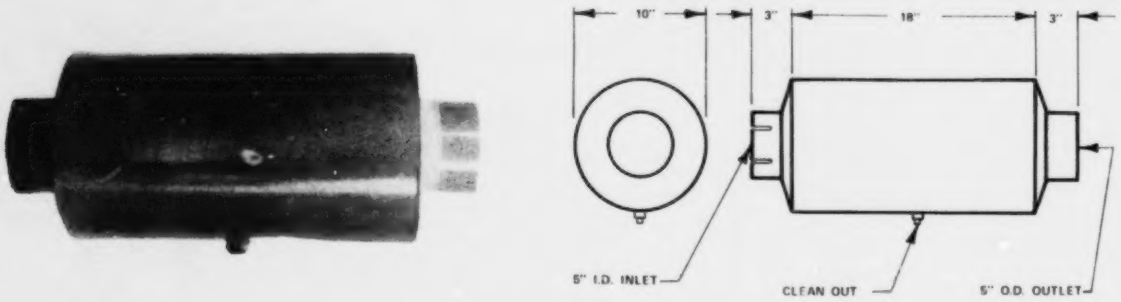


SA-409

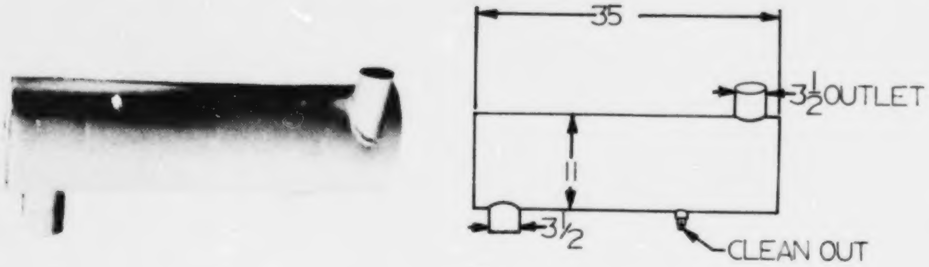

30
24
4
9
4
CLEAN OUT

SA-409

RIKER (Continued)

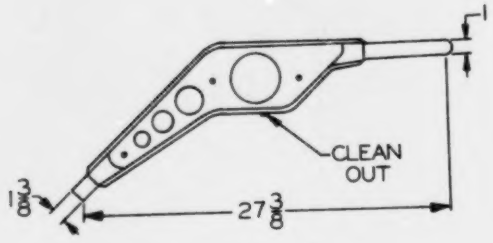

10"
3"
18"
3"
5" I.D. INLET
CLEAN OUT
5" O.D. OUTLET

SA-500


35
3½ OUTLET
11
3½
CLEAN OUT

SA-6762

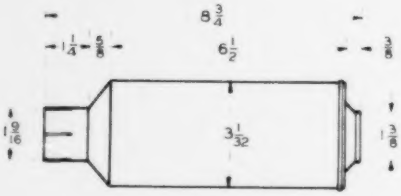
RUPP – RUPP INDUSTRIES, INC.


1
CLEAN OUT
1 3/8
27 3/8

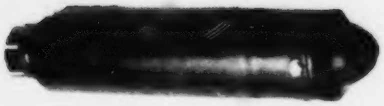
32004

SKYWAY – SKYWAY CYCLE PRODUCTS

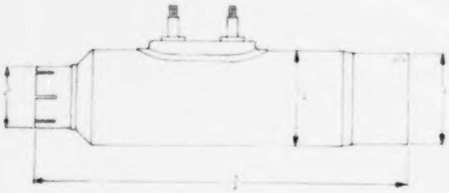
300


8 3/4
1 1/4
5/8
6 1/2
3/8
1 9/16
3 1/32
1 3/8

300

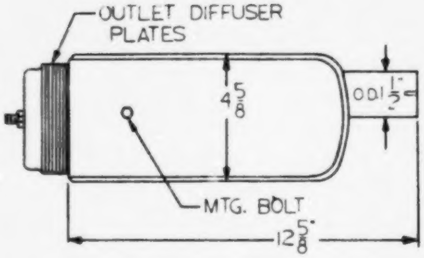


510

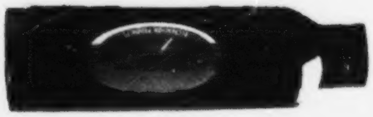


510

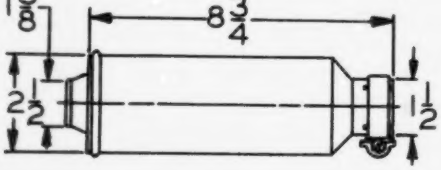
1000


OUTLET DIFFUSER PLATES
4 5/8
O.D. 1 1/2"
MTG. BOLT
12 5/8"

1000



2500

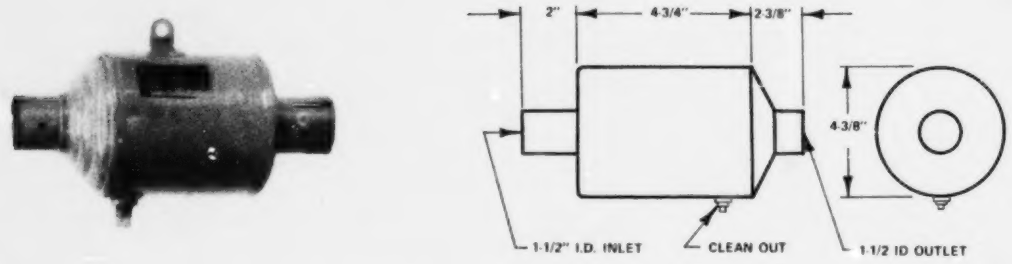

1 3/8
8 3/4
2 1/2
1 1/2

2500

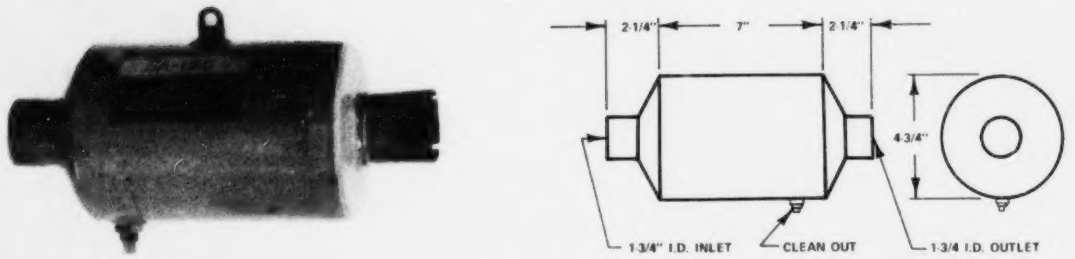
SOUNDMASTER – DEKOVEN MANUFACTURING CO.

FOR SOUNDMASTER NO.	21578	SEE DONALDSON	FCM06-0037	(p. 31)
" " "	21579	" "	FCM06-5030	(p. 31)
" " "	21580	" "	FCM07-0068	(p. 31)
" " "	21581	" "	FCM07-0069	(p. 31)
" " "	21582	" "	FCM08-0024	(p. 32)
" " "	21584	" "	FCM09-0091	(p. 32)
" " "	22055	" "	FCM10-0016	(p. 32)
" " "	35807	SEE NELSON	U-49115	(p. 216)

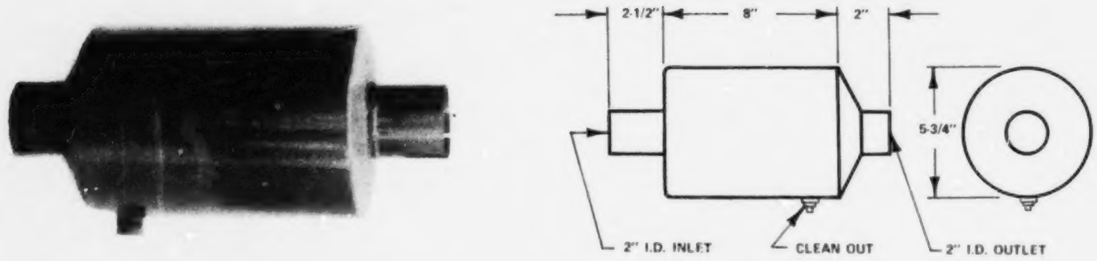
SPARESTER – HOEI INDUSTRIES, LTD.


2"
4-3/4"
2-3/8"
4-3/8"
1-1/2" I.D. INLET
CLEAN OUT
1-1/2 ID OUTLET

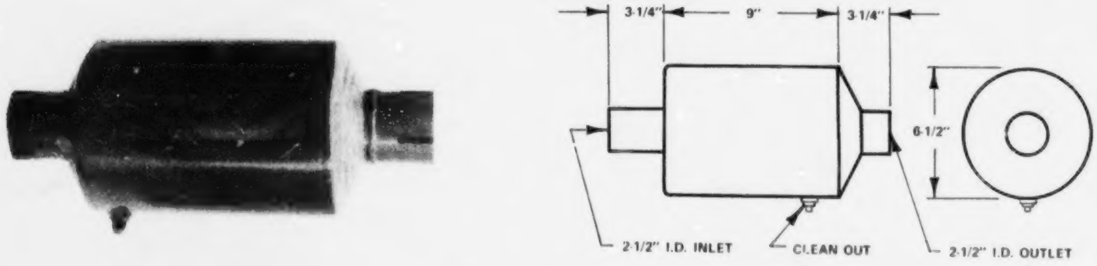
SA–100


2-1/4"
7"
2-1/4"
4-3/4"
1-3/4" I.D. INLET
CLEAN OUT
1-3/4 I.D. OUTLET

SA–120

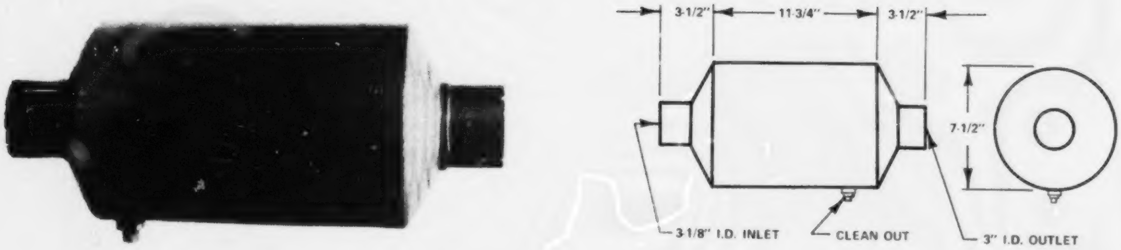

2-1/2"
8"
2"
5-3/4"
2" I.D. INLET
CLEAN OUT
2" I.D. OUTLET

SA–140

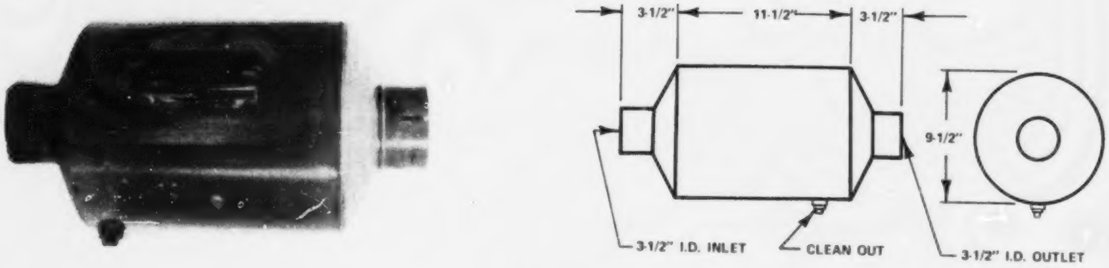

3-1/4"
9"
3-1/4"
6-1/2"
2-1/2" I.D. INLET
CLEAN OUT
2-1/2" I.D. OUTLET

SA–160

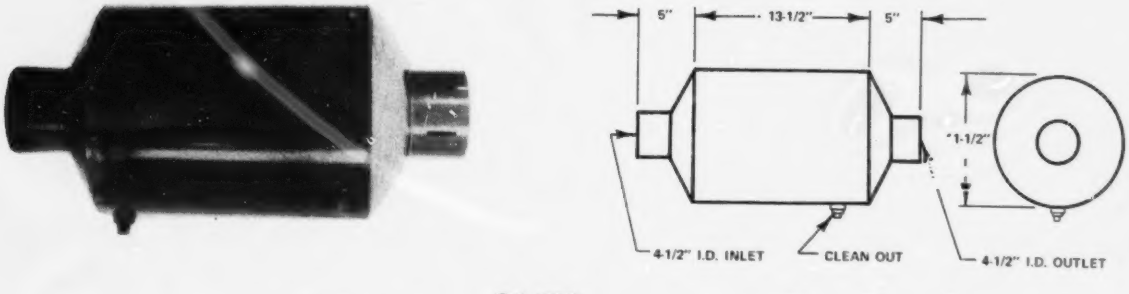
SPARESTER (Continued)


3-1/2"
11-3/4"
3-1/2"
7-1/2"
3-1/8" I.D. INLET
CLEAN OUT
3" I.D. OUTLET

SA-190


3-1/2"
11-1/2"
3-1/2"
9-1/2"
3-1/2" I.D. INLET
CLEAN OUT
3-1/2" I.D. OUTLET

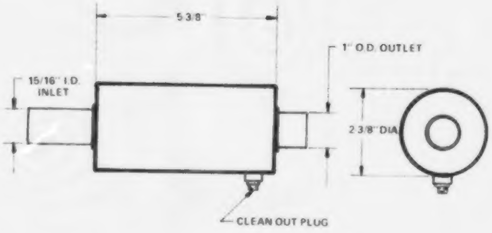
SA-240


5"
13-1/2"
5"
"1-1/2"
4-1/2" I.D. INLET
CLEAN OUT
4-1/2" I.D. OUTLET

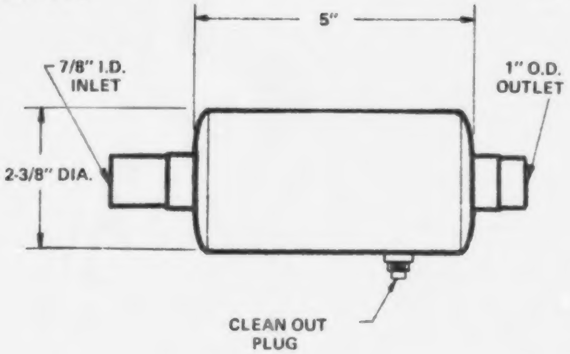
SA-280

SPARESTER

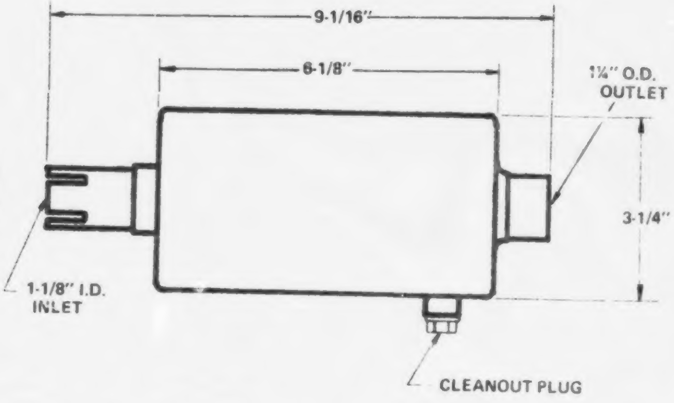
SPARESTER (Continued)


5 3/8"
1" O.D. OUTLET
15/16" I.D. INLET
2 3/8" DIA
CLEAN OUT PLUG
HOEI 802

SPARESTER 602

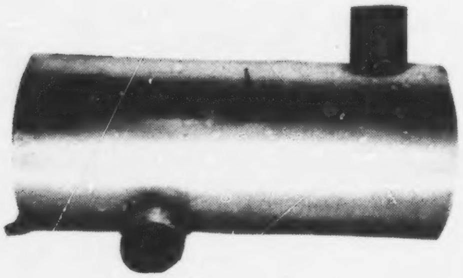

5"
7/8" I.D. INLET
1" O.D. OUTLET
2-3/8" DIA.
CLEAN OUT PLUG

601

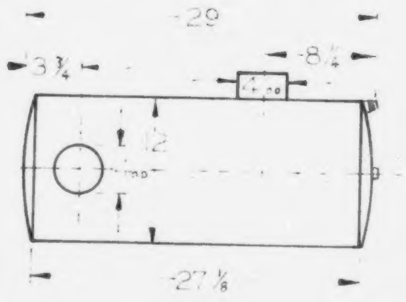

9-1/16"
6-1/8"
1¼" O.D. OUTLET
3-1/4"
1-1/8" I.D. INLET
CLEANOUT PLUG

801

STEMCO – STEMCO MANUFACTURING CO.



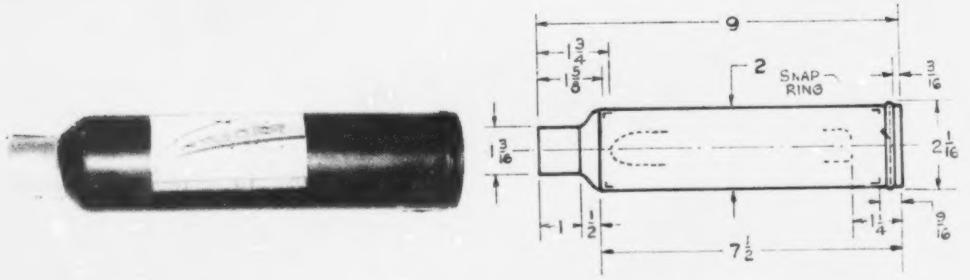
595M



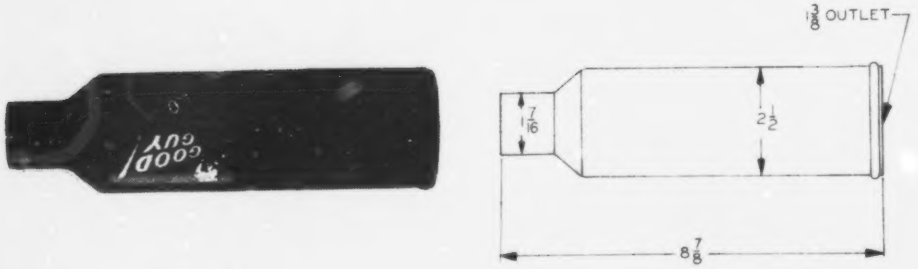
595M

FOR	STEMCO	262-1059	SEE	DONALDSON	FCM06-0037	(p. 31)
"	"	262-1060	"	"	FCM06-5030	(p. 31)
"	"	262-1061	"	"	FCM07-0068	(p. 31)
"	"	262-1062	"	"	FCM07-0069	(p. 31)
"	"	262-1063	"	"	FCM08-0024	(p. 32)
"	"	262-1064	"	"	FCM09-0091	(p. 32)

STRADER – LITTLE GIANT ENGINEERING INC.


9
1 3/4
1 5/8
2
SNAP RING
3/16
1 3/16
2 1/16
1
1/2
1 1/4
9/16
7 1/2

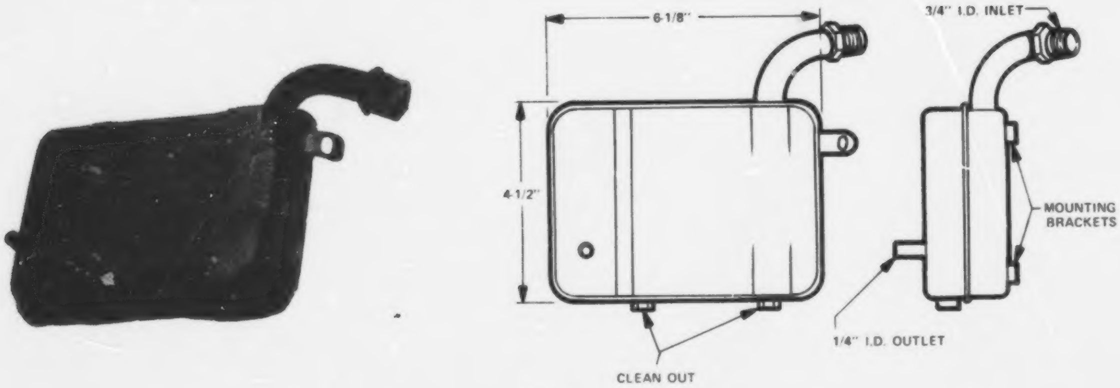
200


1 3/8 OUTLET
1 7/16
2 1/2
8 7/8
GOOD GUY

400

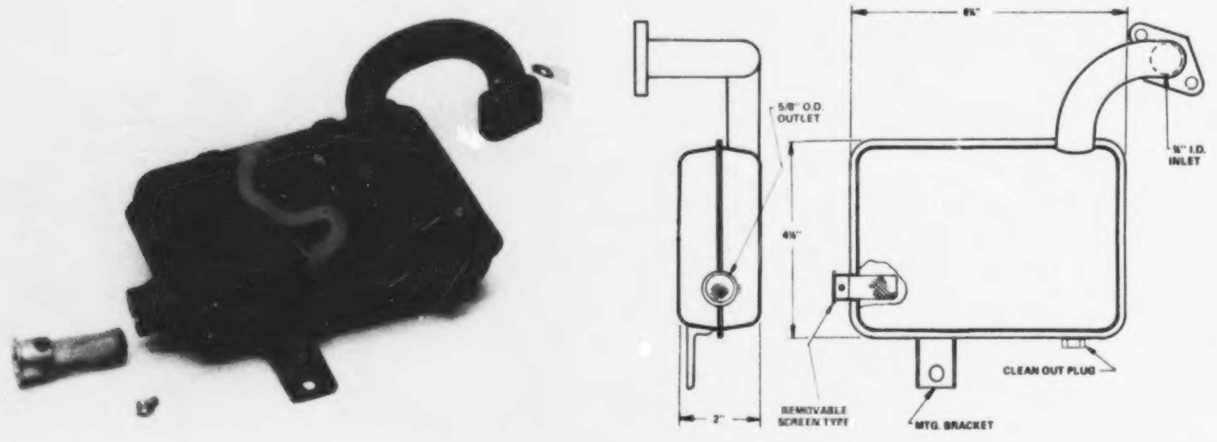
SUPER-TRAPP – SEE XDUCER (Discojet Corporation) – p. 253

SUZUKI MOTOR CO.

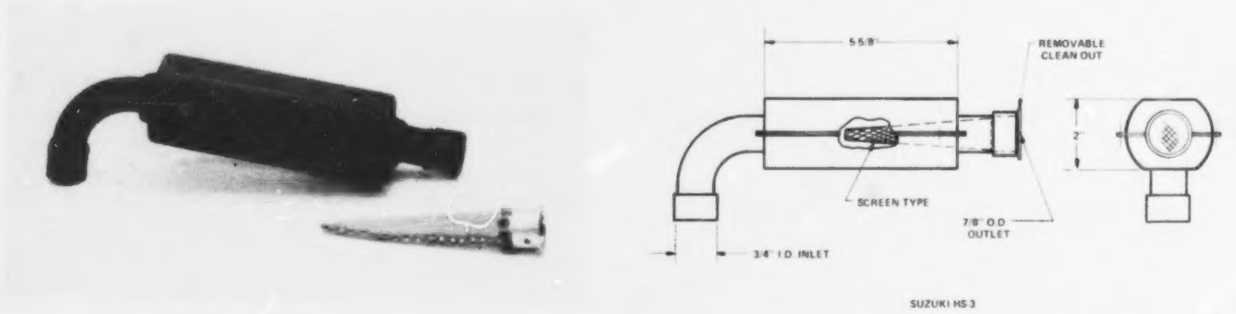

6-1/8"
3/4" I.D. INLET
4-1/2"
MOUNTING BRACKETS
1/4" I.D. OUTLET
CLEAN OUT

HS-1

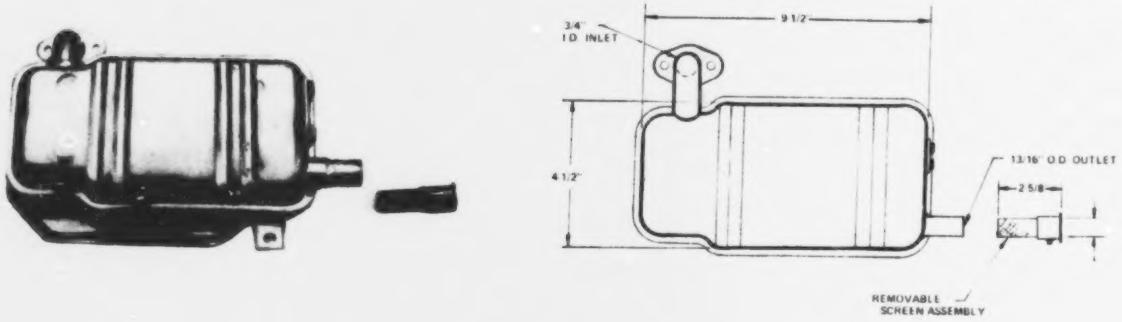
SUZUKI- KRIZMAN (Continued)


6¾"
5/8" O.D. OUTLET
¾" I.D. INLET
4¾"
CLEAN OUT PLUG
2"
REMOVABLE SCREEN TYPE
MTG. BRACKET

SUZUKI HS-2

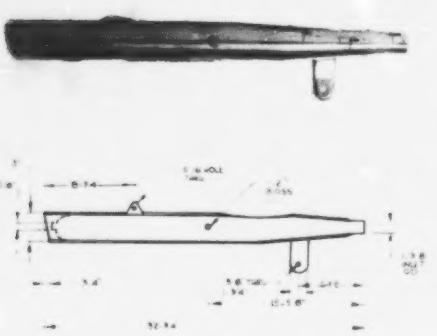

5 5/8"
REMOVABLE CLEAN OUT
2"
SCREEN TYPE
7/8" O.D. OUTLET
3/4" I.D. INLET
SUZUKI HS 3

SUZUKI HS-3

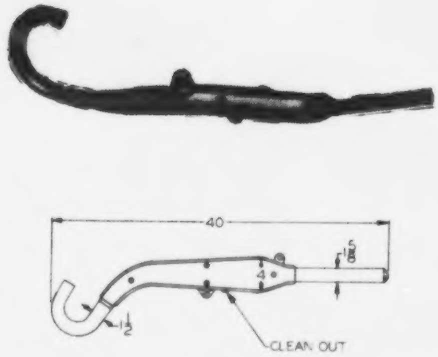

3/4" I.D. INLET
9 1/2
4 1/2"
13/16" O.D. OUTLET
2 5/8
REMOVABLE SCREEN ASSEMBLY

SUZUKI HS-4

SUZUKI-KRIZMAN (Continued)

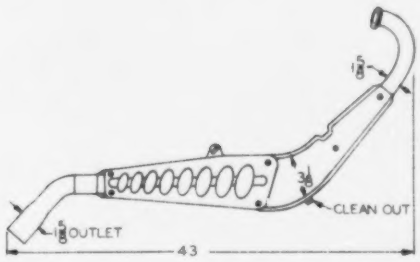


K-15


40
1 5/8
4
1 1/2
CLEAN OUT

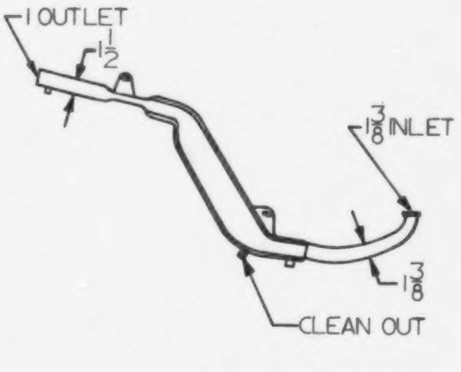
KS-250

KS-250M


1 5/8
3 5/8
CLEAN OUT
1 5/8 OUTLET
43

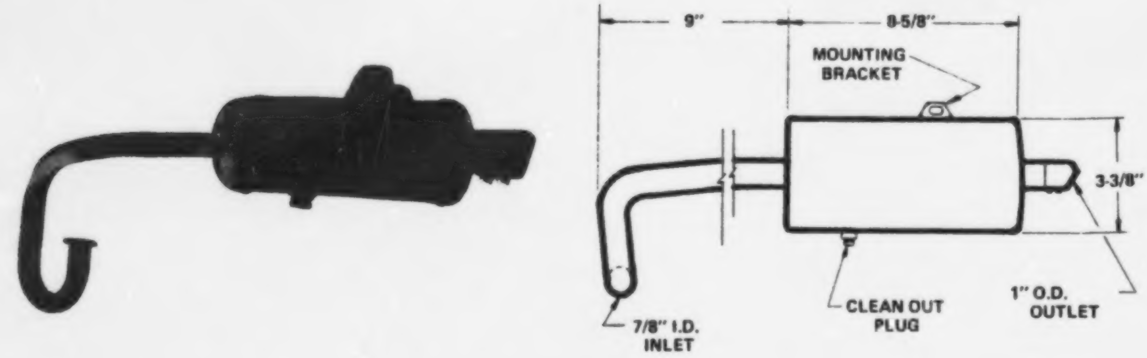
KS-250M

KS-250 (For TM 75)


1 OUTLET
1 1/2
1 3/8 INLET
1 3/8
CLEAN OUT

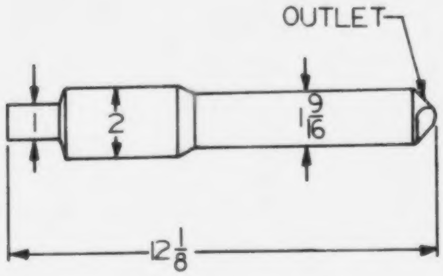
KS-250 (For TM 75)

SUZUKI-KRIZMAN (Continued)

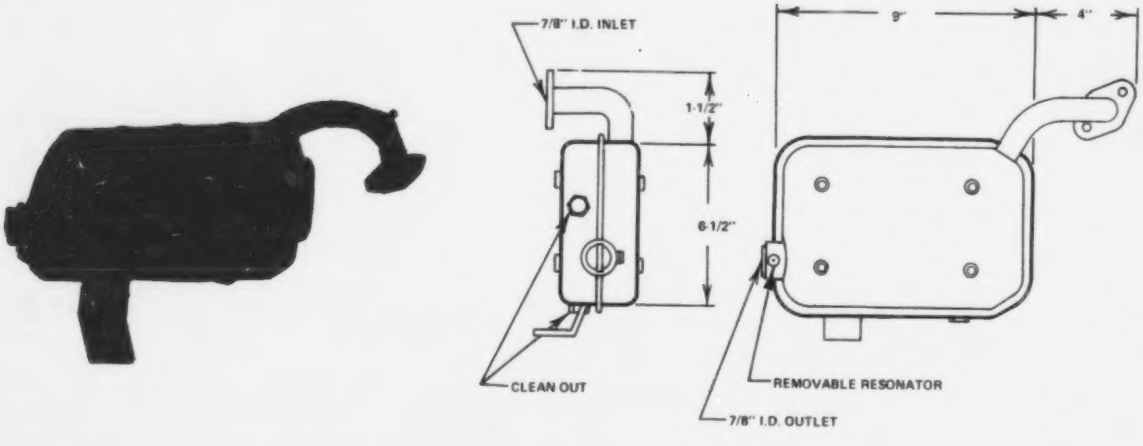

9"
8-5/8"
MOUNTING BRACKET
3-3/8"
7/8" I.D. INLET
CLEAN OUT PLUG
1" O.D. OUTLET

KS-250 (For ALT 50)

KS-250 (For TS-80)

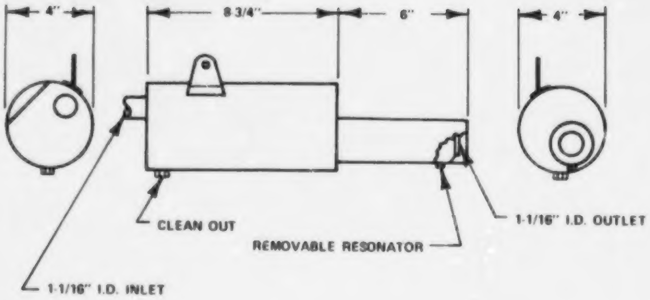

OUTLET
1
2
1 9/16
12 1/8

KS-250 (For TS-80)


7/8" I.D. INLET
1-1/2"
6-1/2"
9"
4"
CLEAN OUT
REMOVABLE RESONATOR
7/8" I.D. OUTLET

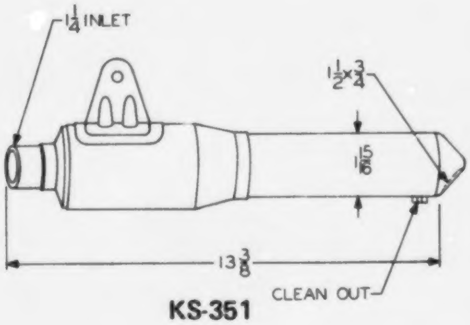
KS-250 (For SE 1500 & SE 2500)

SUZUKI-KRIZMAN (Continued)


4"
8 3/4"
6"
4"
CLEAN OUT
REMOVABLE RESONATOR
1-1/16" I.D. OUTLET
1-1/16" I.D. INLET

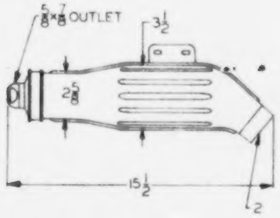
KS-350-3

KS-351

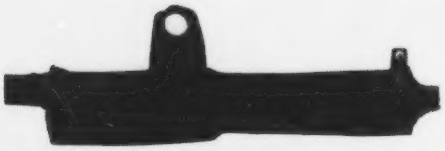

1¼ INLET
1½×¾
1 15/16
13⅜
CLEAN OUT

KS-351

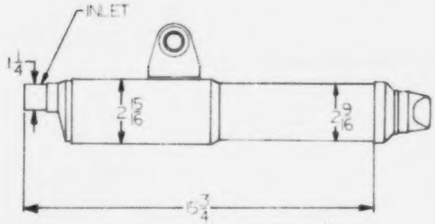
KS-400


⅝×⅞ OUTLET
3½
2⅝
15½
2

KS-400

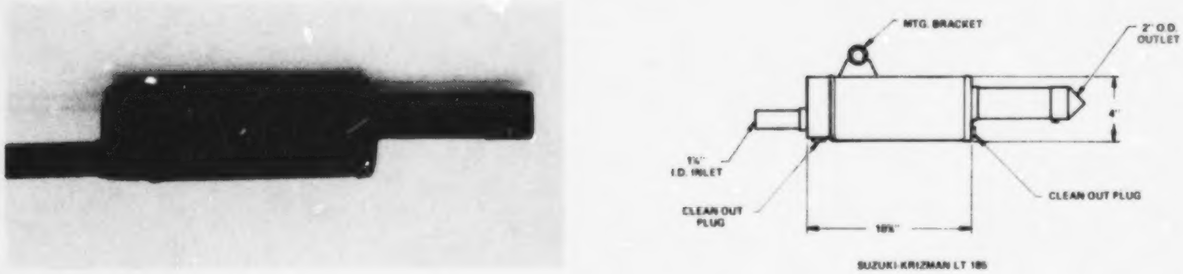


KS-400 (For P.E. 250)

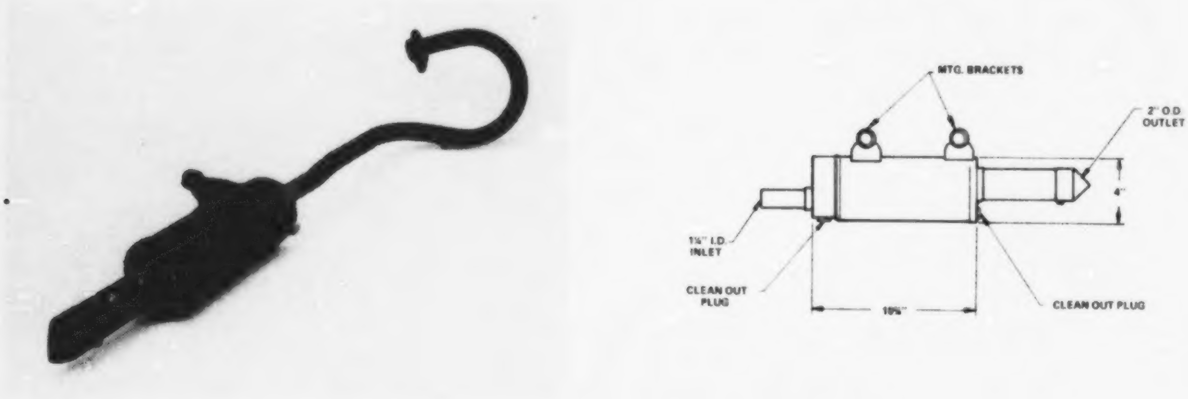

INLET
1¼
2 15/16
2 9/16
15¾

KS-400 (For P.E. 250)

SUZUKI-KRIZMAN (Continued)


MTG. BRACKET
2" O.D. OUTLET
1¼" I.D. INLET
4"
CLEAN OUT PLUG
CLEAN OUT PLUG
10¾"
SUZUKI-KRIZMAN LT 185

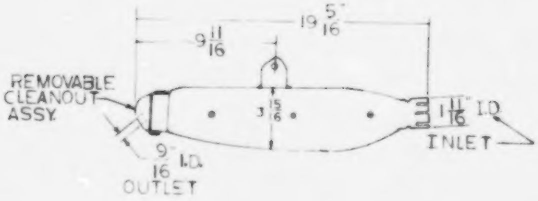
SUZUKI-KRIZMAN KS-350-3 (FOR LT 185)


MTG. BRACKETS
2" O.D. OUTLET
4"
1¼" I.D. INLET
CLEAN OUT PLUG
CLEAN OUT PLUG
10¾"

SUZUKI-KRIZMAN KS-350-3 (FOR LT 250)

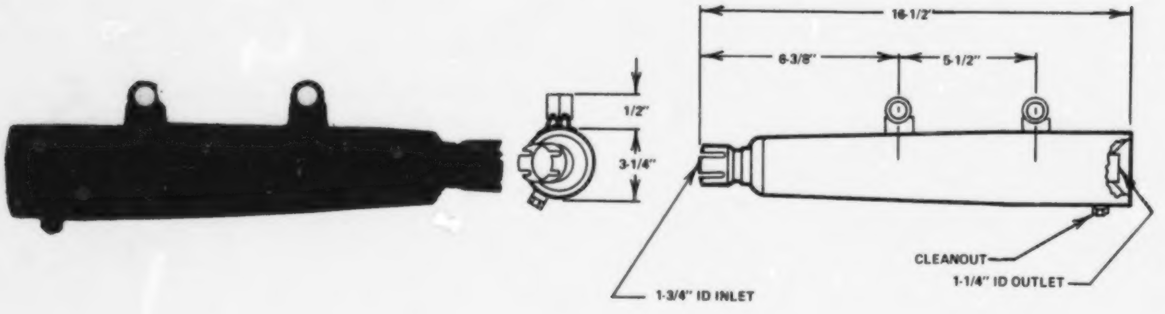
SUZUKI-KRIZMAN (Continued)

KS-400-1

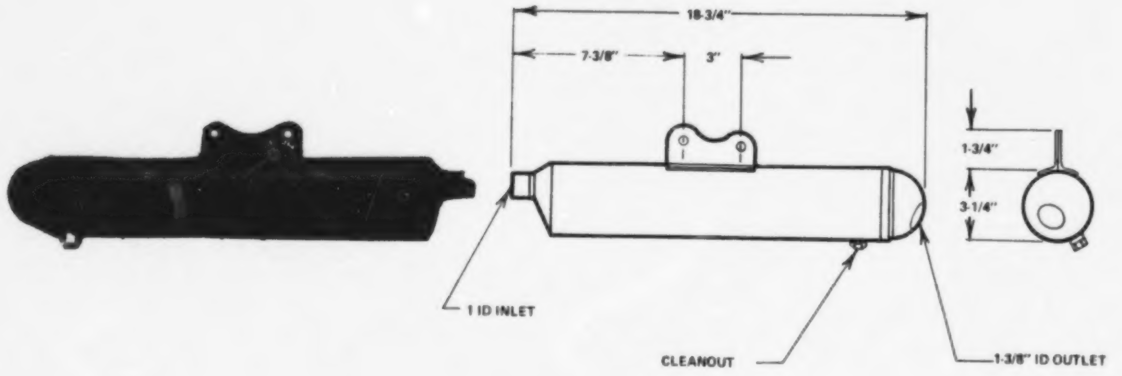

19 5/16"
9 11/16
REMOVABLE CLEANOUT ASSY.
3 15/16
1 11/16" I.D.
INLET
9/16" I.D.
OUTLET

KS-400-1

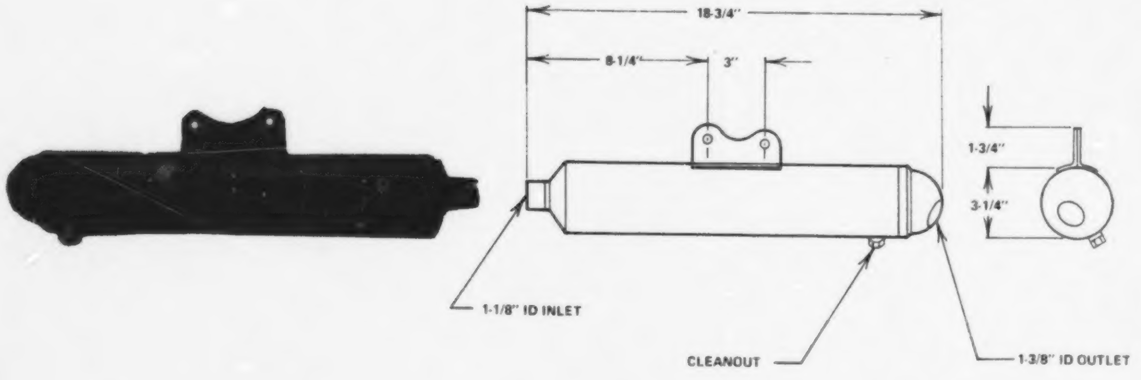
SUZUKI-SPARESTER-1 – SUZUKI MOTOR CO.


16-1/2"
6-3/8"
5-1/2"
1/2"
3-1/4"
CLEANOUT
1-1/4" ID OUTLET
1-3/4" ID INLET

DR-400

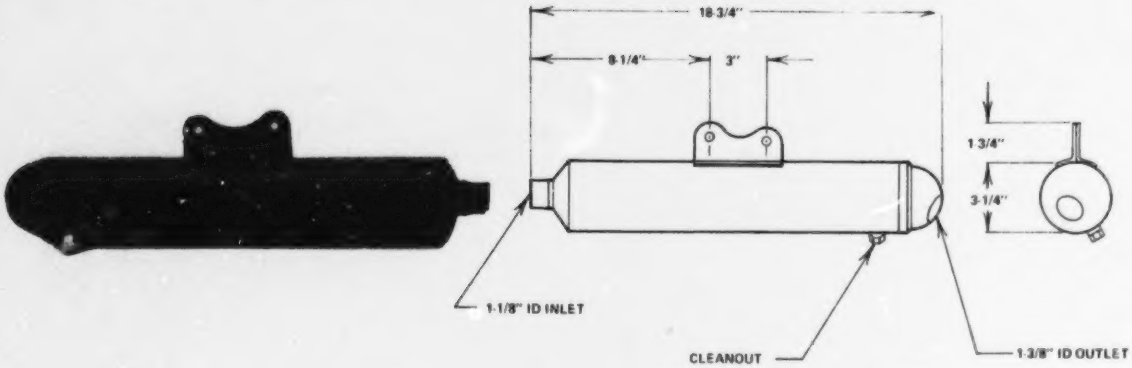

18-3/4"
7-3/8"
3"
1-3/4"
3-1/4"
1 ID INLET
CLEANOUT
1-3/8" ID OUTLET

PE-175

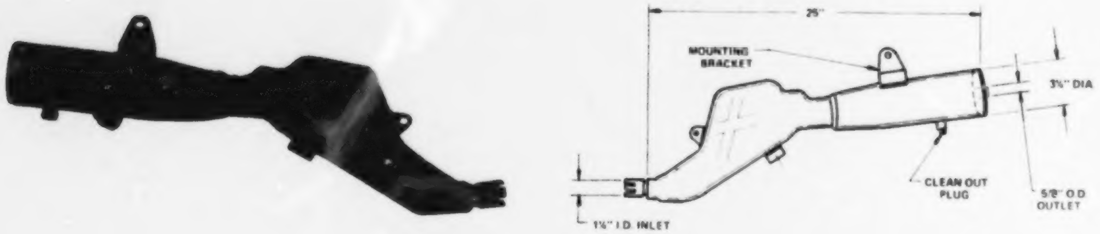

18-3/4"
8-1/4"
3"
1-3/4"
3-1/4"
1-1/8" ID INLET
CLEANOUT
1-3/8" ID OUTLET

PE-250

SUZUKI-SPARESTER-1 (Continued)


18-3/4"
8-1/4"
3"
1-3/4"
3-1/4"
1-1/8" ID INLET
CLEANOUT
1-3/8" ID OUTLET

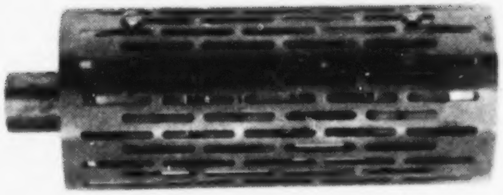
PE-400


25"
MOUNTING BRACKET
3¼" DIA
CLEAN OUT PLUG
5/8" O.D OUTLET
1¼" I.D. INLET

801
801-X0523X

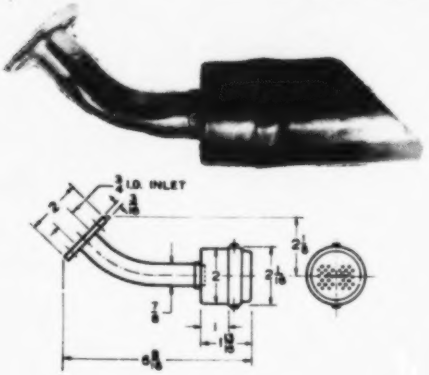
TAYLOR DIVISION – TECUMSEH PRODUCTS CO.

Screen-Type without guard

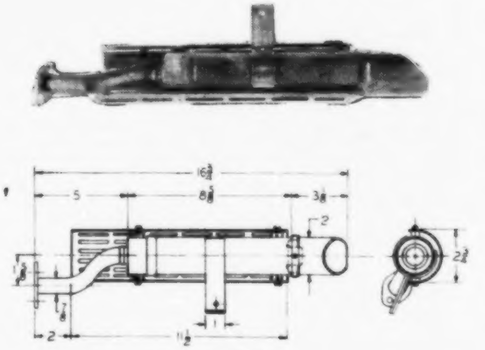


Screen-Type with muffler and guard

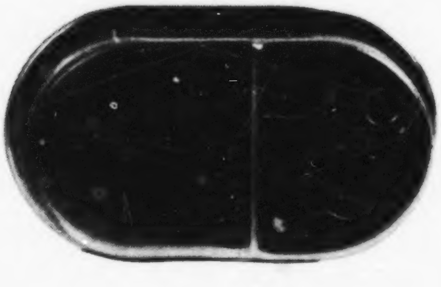
100 (SCREEN-TYPE)


3/4 I.D. INLET
3/16
2
1
2 1/8
2
2 1/16
7/8
1
1 13/16
6 5/16

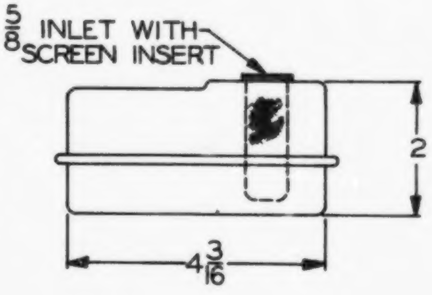
200


16 3/4
5
8 5/8
3 1/8
2
1 5/8
7/8
1
2
11 1/2
2 3/4

300

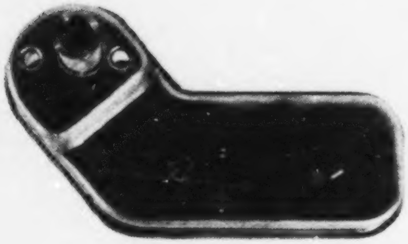


400

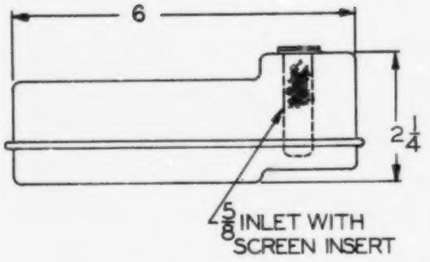

5/8 INLET WITH SCREEN INSERT
2
4 3/16

400

TAYLOR DIVISION (Continued)

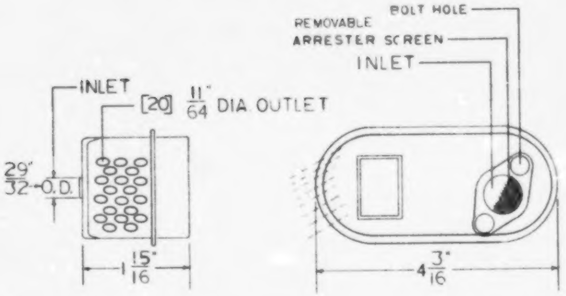


400A


6
2 1/4
5/8 INLET WITH SCREEN INSERT

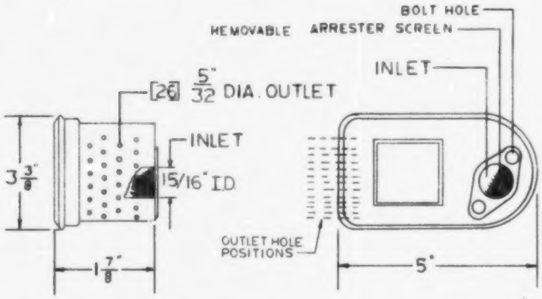
400A

750


BOLT HOLE
REMOVABLE ARRESTER SCREEN
INLET
INLET
[20] 11" /64 DIA OUTLET
29"/32 O.D.
1 15"/16
4 3"/16

750

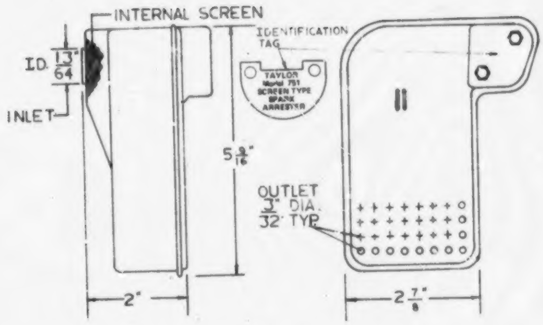
750A


BOLT HOLE
REMOVABLE ARRESTER SCREEN
INLET
[26] 5"/32 DIA. OUTLET
INLET
3 3"/8
15/16" I.D.
OUTLET HOLE POSITIONS
1 7"/8
5"

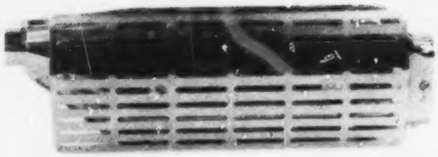
750A

TAYLOR DIVISION (Continued)

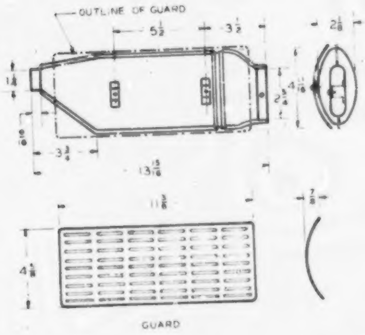
751


INTERNAL SCREEN
I.D. $\frac{13}{64}$"
INLET
IDENTIFICATION TAG
TAYLOR
Model 751
SCREEN TYPE
SPARK
ARRESTER
$5\frac{9}{16}$"
OUTLET
$\frac{3}{32}$" DIA.
TYP.
2"
$2\frac{7}{8}$"

751

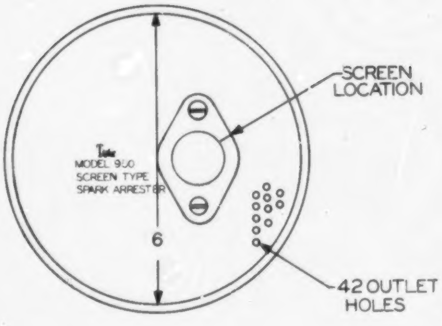


800


OUTLINE OF GUARD
$5\frac{1}{2}$
$3\frac{1}{2}$
$2\frac{1}{8}$
$1\frac{1}{4}$
$2\frac{3}{4}$
$4\frac{11}{16}$
$\frac{9}{16}$
$3\frac{3}{4}$
$13\frac{15}{16}$
$11\frac{3}{8}$
$\frac{7}{8}$
$4\frac{5}{8}$
GUARD

800

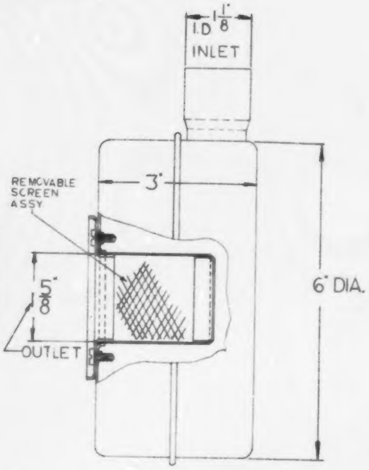
900


SCREEN LOCATION
Taylor
MODEL 900
SCREEN TYPE
SPARK ARRESTER
6
42 OUTLET HOLES

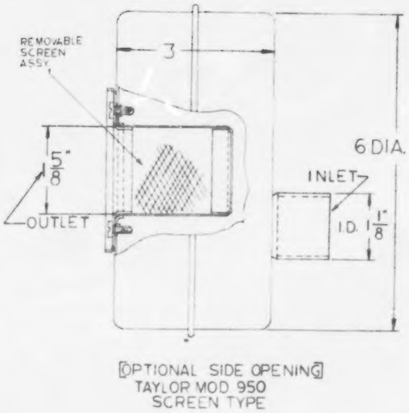
900

TAYLOR DIVISION (Continued)

950


I.D. 1 1/8"
INLET
REMOVABLE SCREEN ASSY
3"
1 5/8"
OUTLET
6" DIA.

950

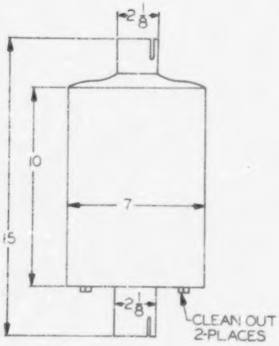

REMOVABLE SCREEN ASSY
3
1 5/8"
OUTLET
6 DIA.
INLET
I.D. 1 1/8"

[OPTIONAL SIDE OPENING]
TAYLOR MOD 950
SCREEN TYPE

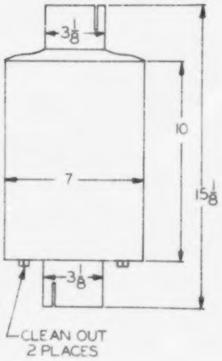
950

TECK – TECK INDUSTRIES DIVISION

SS-860-2

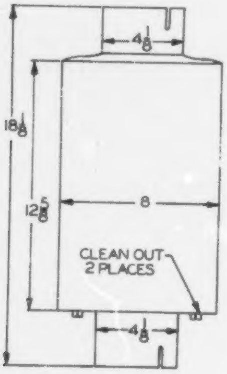

2 1/8
10
15
7
2 1/8
CLEAN OUT
2-PLACES

SS-860-2

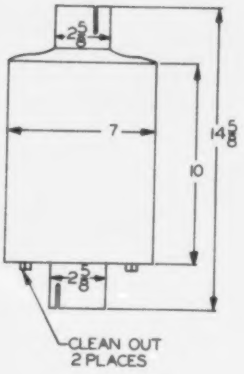

3 1/8
10
7
15 1/8
3 1/8
CLEAN OUT
2 PLACES

SS-860-3

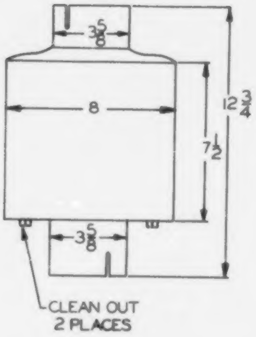
TECK (Continued)


18 1/8
4 1/8
12 5/8
8
CLEAN OUT 2 PLACES
4 1/8

SS-860-4A

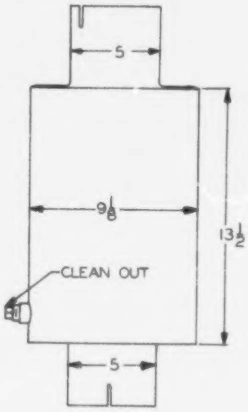

2 5/8
7
10
14 5/8
2 5/8
CLEAN OUT 2 PLACES

SS-860-25

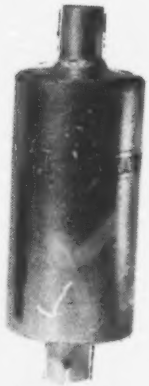

3 5/8
8
12 3/4
7 1/2
3 5/8
CLEAN OUT 2 PLACES

SS-860-35

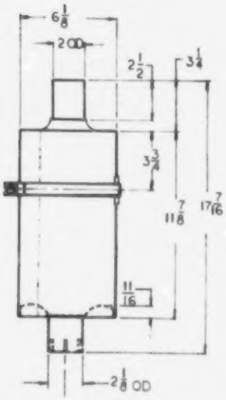
SS-860-5


5
9 1/8
13 1/2
CLEAN OUT
5

SS-860-5



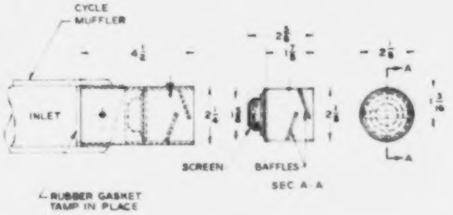
I-6250-C


6 1/8
2 OD
2 1/2
3 1/4
3 3/4
11 7/8
17 7/16
11/16
2 1/8 OD

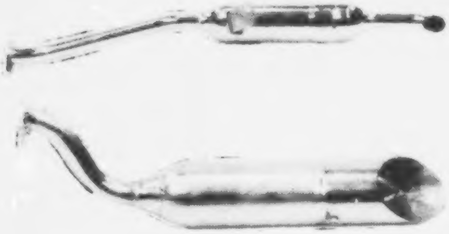
I-6250-C

TILLERY – RESOURCES CONSERVATION EQUIPMENT CO.

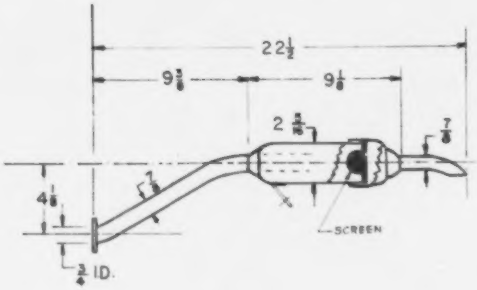
T-134 (Screen-Type)


CYCLE MUFFLER
4½
2¼
1⅞
1 3/16
A
A
INLET
SCREEN
BAFFLES
SEC A-A
RUBBER GASKET TAMP IN PLACE

T-134 (Screen-Type)

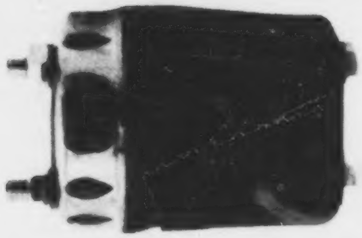


T-234 (Screen-Type)

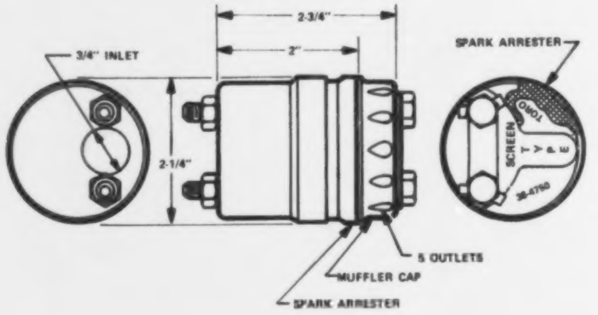

22½
9⅜
9⅛
2 5/16
⅞
SCREEN
¾ I.D.

T-234 (Screen-Type)

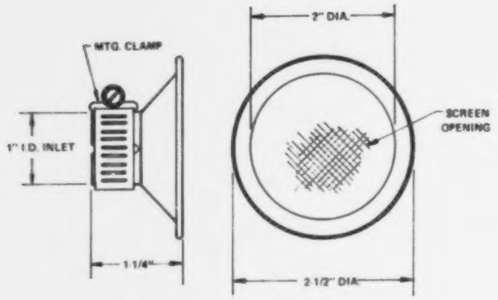
THE TORO COMPANY



36-4750

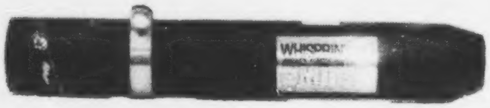

2-3/4"
2"
3/4" INLET
2-1/4"
SPARK ARRESTER
TORO
SCREEN
TYPE
36-4750
5 OUTLETS
MUFFLER CAP
SPARK ARRESTER

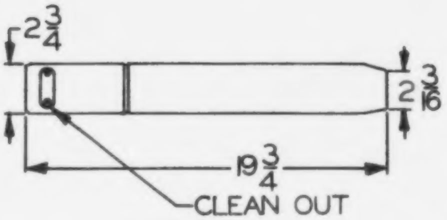
36-4750


2" DIA.
MTG. CLAMP
SCREEN OPENING
1" I.D. INLET
1-1/4"
2-1/2" DIA.

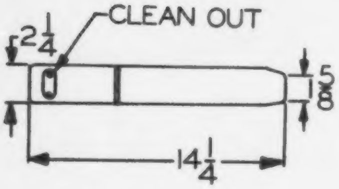
81-0200

TORQUE – TORQUE ENGINEERING CO.

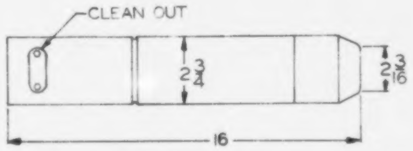



2 3/4
2 3/16
19 3/4
CLEAN OUT

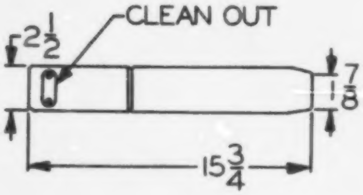
TQ-3000


CLEAN OUT
2 1/4
1 5/8
14 1/4

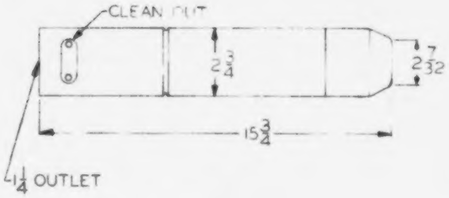
TQ-1000


CLEAN OUT
2 3/4
2 3/16
16

TQ-3000A


CLEAN OUT
2 1/2
1 7/8
15 3/4

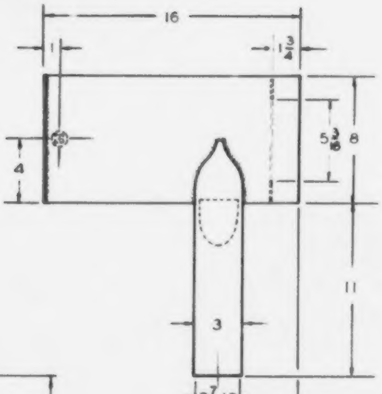
TQ-2000


CLEAN OUT
2 3/4
2 7/32
15 3/4
1 1/4 OUTLET

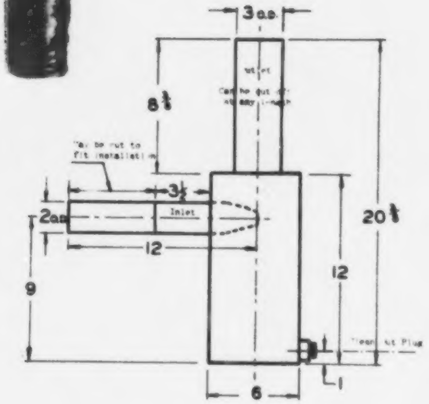
TQ-3000B

USDA – FOREST SERVICE

FS-3

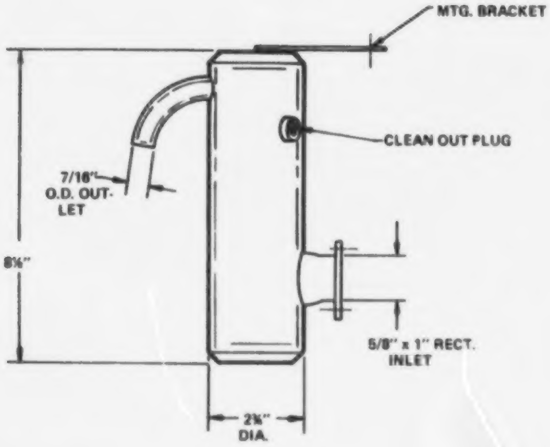

16
1
1 3/4
5 3/16
8
4
11
3
2 7/8
I.D.
5

FS-3


3 O.D.
Inlet
8 7/8
May be cut to fit installation
3½
2 O.D.
Inlet
12
20 7/8
9
12
Clean out Plug
1
6

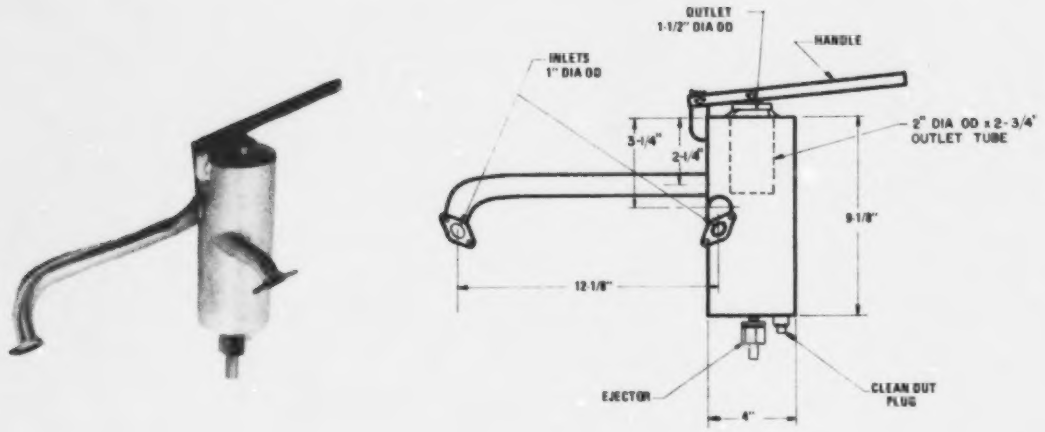
FS-4

WACKER

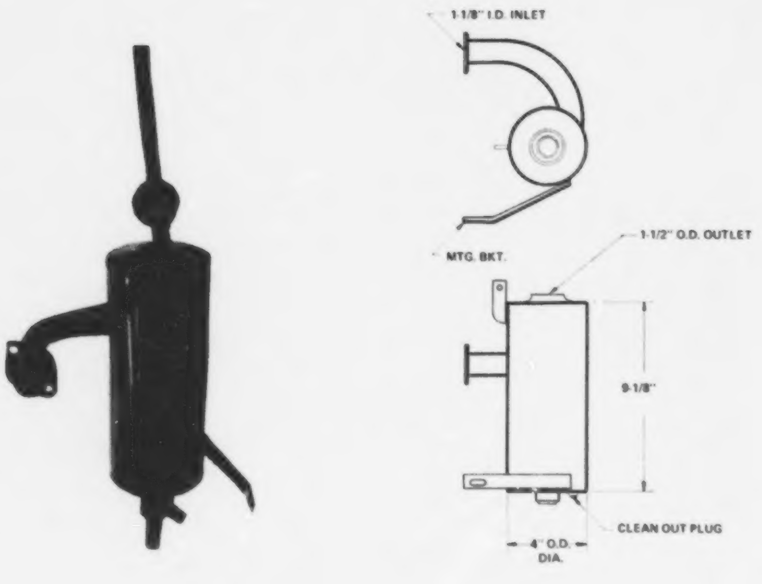

MTG. BRACKET
CLEAN OUT PLUG
7/16" O.D. OUT-LET
8½"
5/8" x 1" RECT. INLET
2¾" DIA.

58406

WAJAX-PACIFIC


OUTLET 1-1/2" DIA OD
HANDLE
INLETS 1" DIA OD
3-1/4"
2-1/4"
2" DIA OD x 2-3/4" OUTLET TUBE
9-1/8"
12-1/8"
EJECTOR
CLEAN OUT PLUG
4"

PB-1196


1-1/8" I.D. INLET
MTG. BKT.
1-1/2" O.D. OUTLET
9-1/8"
CLEAN OUT PLUG
4" O.D. DIA.

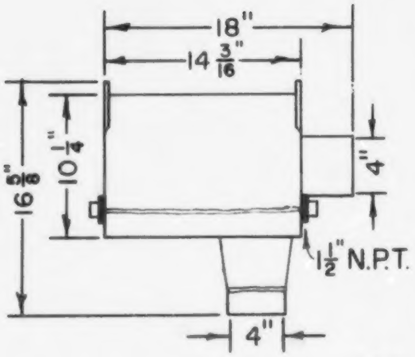
PC-1216

WALKER — WALKER MANUFACTURING CO.

FOR WALKER NO.			21578	SEE DONALDSON		FCM06-0037 (p. 31)
"	"	"	21579	"	"	FCM06-5030 (p. 31)
"	"	"	21580	"	"	FCM07-0068 (p. 31)
"	"	"	21581	"	"	FCM07-0069 (p. 31)
"	"	"	21582	"	"	FCM08-0024 (p. 32)
"	"	"	21584	"	"	FCM09-0091 (p. 32)
"	"	"	35807	SEE NELSON		U-49115 (p. 216)

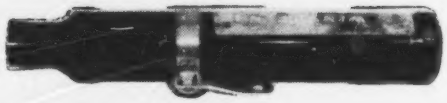
WASHINGTON IRON WORKS

NO. 3

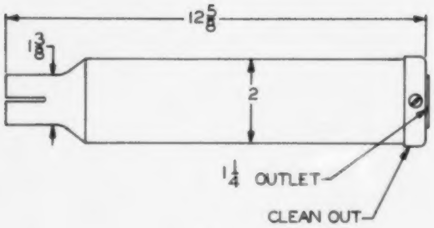

18"
14 $\frac{3}{16}$"
16 $\frac{5}{8}$"
10 $\frac{1}{4}$"
4"
1½" N.P.T.
4"

NO. 3

WINTEC – FUN'N FAST INC.



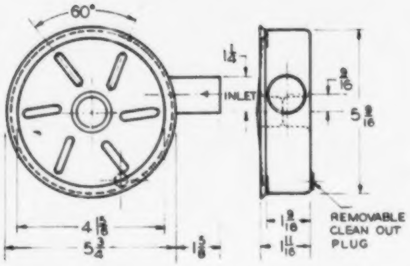
WINTEC 500


12 5/8
1 3/8
2
1 1/4 OUTLET
CLEAN OUT

WINTEC 500

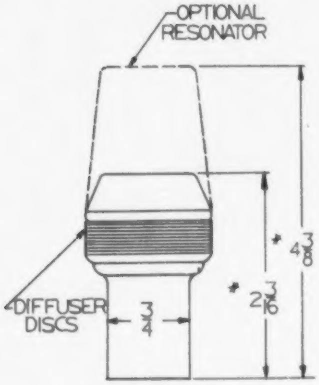
XDUCER & SUPER-TRAPP – DISCO-JET CORP.

XDUCER


60°
1 1/4
INLET
9/16
5 9/16
4 15/16
5 3/4
1 5/8
1 9/16
1 11/16
REMOVABLE
CLEAN OUT
PLUG

XDUCER X-100-XDUCER II

SUPER-TRAPP T-99

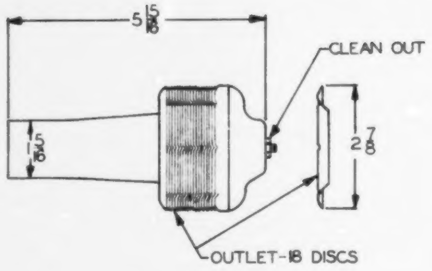

OPTIONAL
RESONATOR
DIFFUSER
DISCS
3/4
* 2 3/16
* 4 3/8

*-VARIES WITH DISC AMOUNT

SUPER-TRAPP T-99

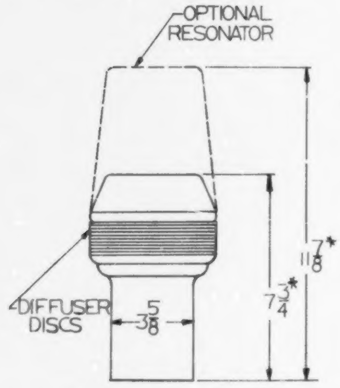
XDUCER II – DISCO-JET CORP.(Continued)

SUPER-TRAPP T-100


5 15/16
CLEAN OUT
1 5/16
2 7/8
OUTLET-18 DISCS

SUPER-TRAPP T-100

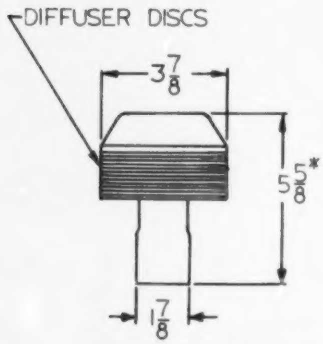
SUPER-TRAPP T-101


OPTIONAL RESONATOR
DIFFUSER DISCS
3 5/8
7 3/4*
11 7/8*

*-VARIES WITH DISC AMOUNT

SUPER-TRAPP T-101

SUPER-TRAPP T-102

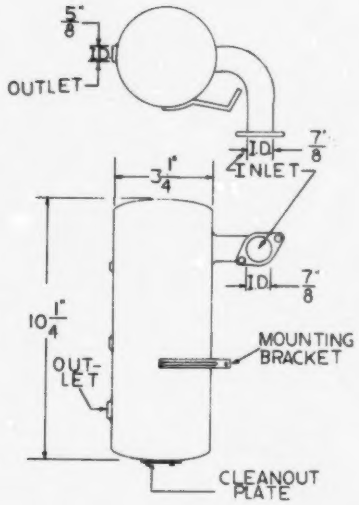

DIFFUSER DISCS
3 7/8
5 5/8*
1 7/8

* VARIES WITH NUMBER OF DIFFUSER DISCS

SUPER-TRAPP T-102

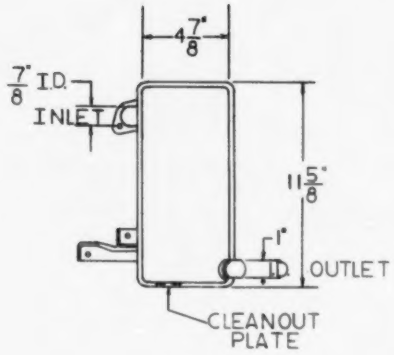
YAMAHA–YAMAHA INTERNATIONAL CORP.

EG 100A&B


5/8"
OUTLET
I.D.
7/8"
INLET
3 1/4"
10 1/4"
I.D.
7/8"
MOUNTING BRACKET
OUT-LET
CLEANOUT PLATE

GG 100A&B

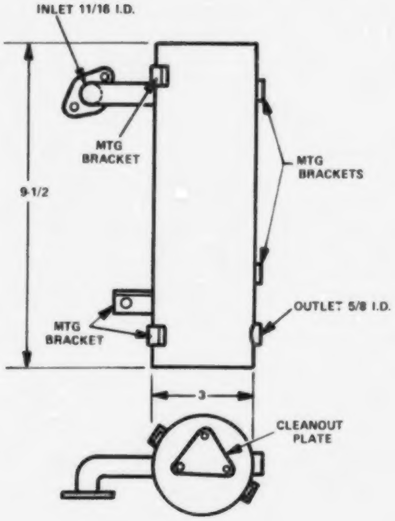
EG 102A&B


4 7/8"
7/8" I.D.
INLET
11 5/8"
1"
OUTLET
CLEANOUT PLATE

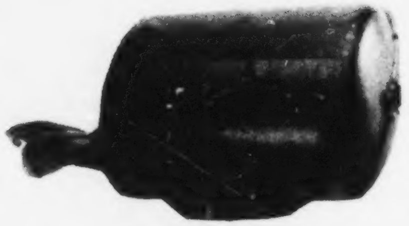
EG 102A&B

YAMAHA (Continued)

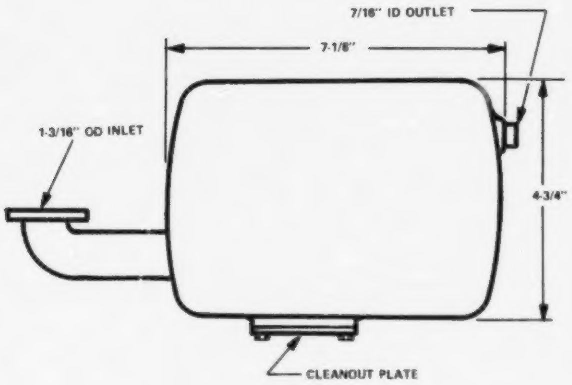
EG 103A&B


INLET 11/16 I.D.
MTG BRACKET
MTG BRACKETS
9-1/2
MTG BRACKET
OUTLET 5/8 I.D.
3
CLEANOUT PLATE

EG 103A&B

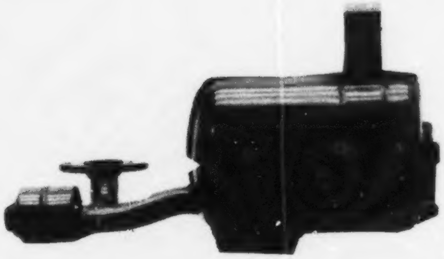


104A&B

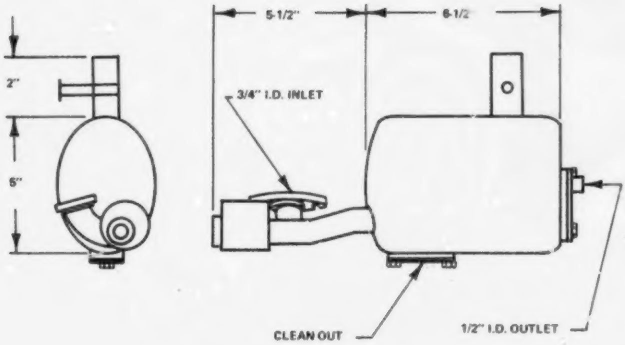

7/16" ID OUTLET
7-1/8"
1-3/16" OD INLET
4-3/4"
CLEANOUT PLATE

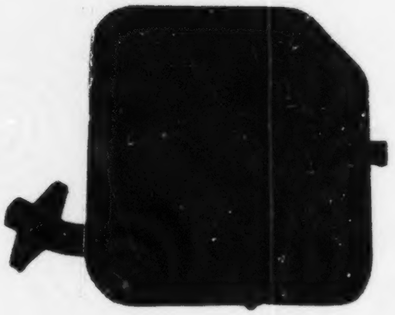
104A&B

YAMAHA (Continued)

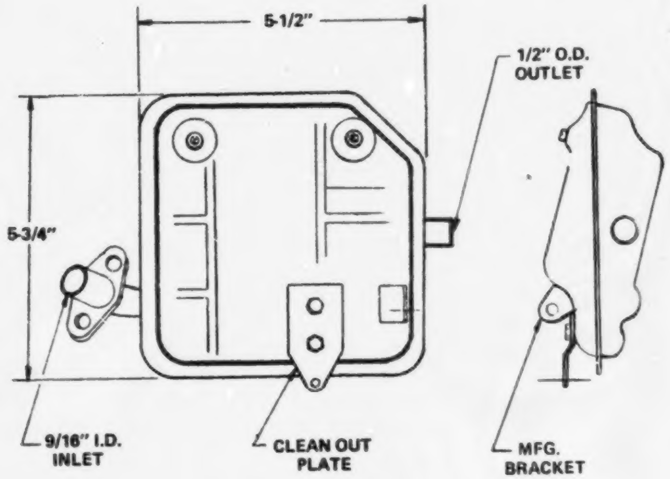


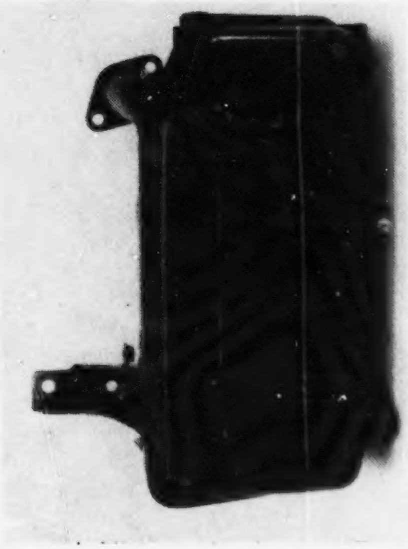
EG 105A

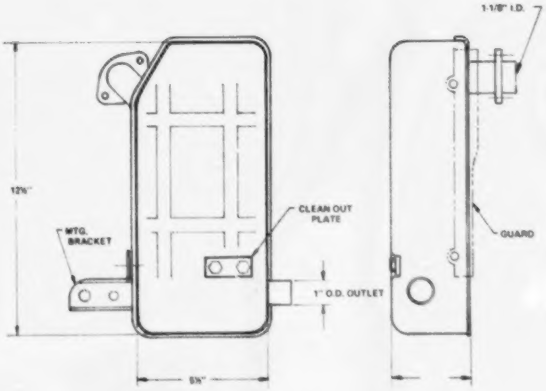

2"
5"
5-1/2"
6-1/2"
3/4" I.D. INLET
CLEAN OUT
1/2" I.D. OUTLET



EG 106


5-1/2"
1/2" O.D. OUTLET
5-3/4"
9/16" I.D. INLET
CLEAN OUT PLATE
MFG. BRACKET

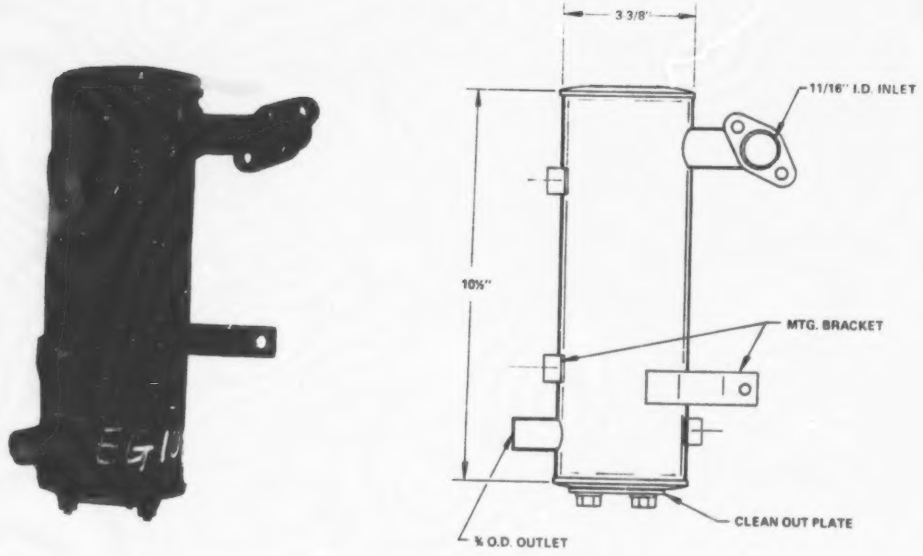



1-1/8" I.D.
12¾"
MTG. BRACKET
CLEAN OUT PLATE
GUARD
1" O.D. OUTLET
5¾"

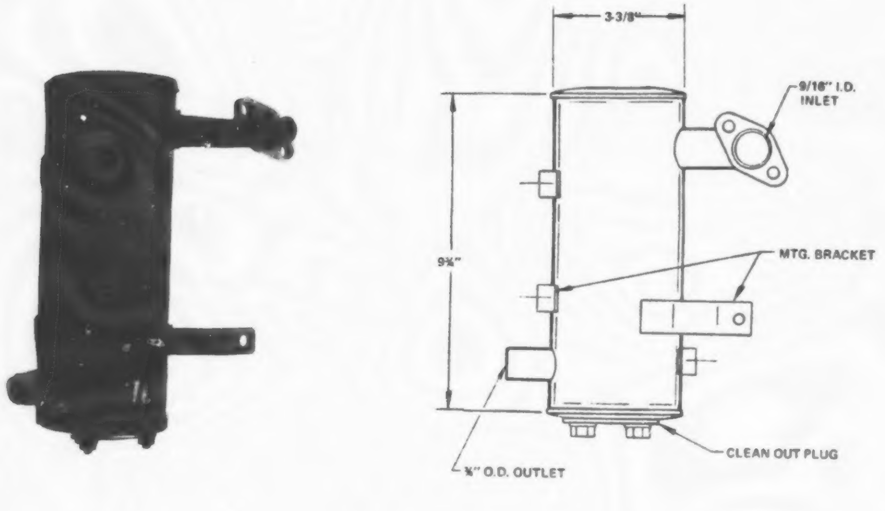
EG 107

YAMAHA

YAMAHA (Continued)

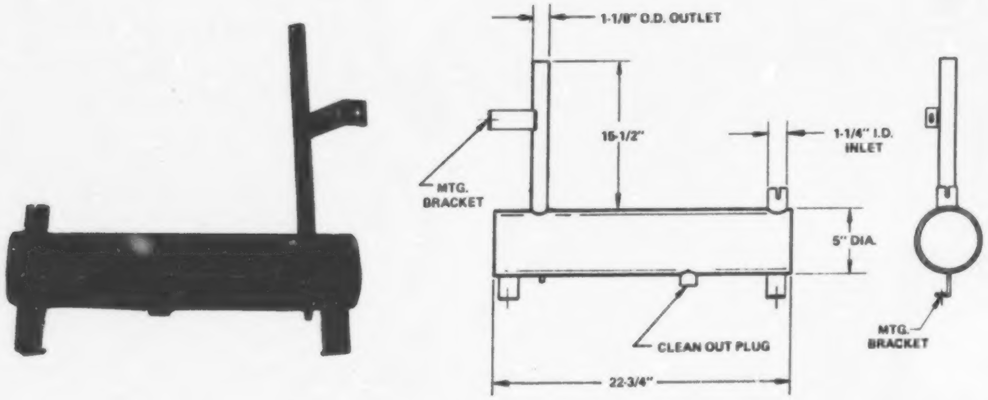

EG 1
3 3/8"
11/16" I.D. INLET
10½"
MTG. BRACKET
CLEAN OUT PLATE
¾ O.D. OUTLET

EG 108

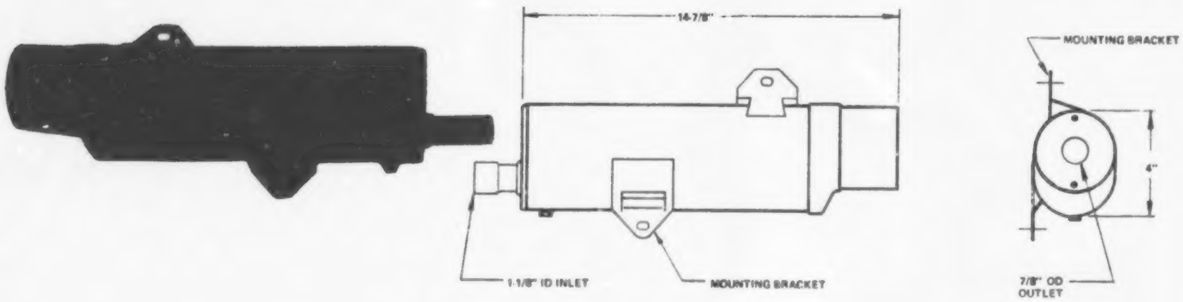

3-3/8"
9/16" I.D. INLET
9¾"
MTG. BRACKET
CLEAN OUT PLUG
¾" O.D. OUTLET

EG 109

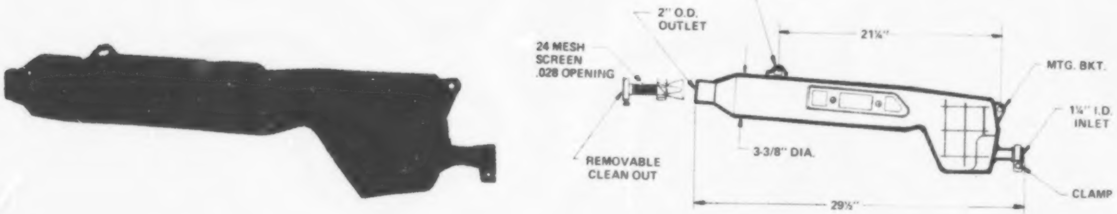
YAMAHA (Continued)


1-1/8" O.D. OUTLET
15-1/2"
1-1/4" I.D. INLET
MTG. BRACKET
5" DIA.
CLEAN OUT PLUG
22-3/4"
MTG. BRACKET

EG 110

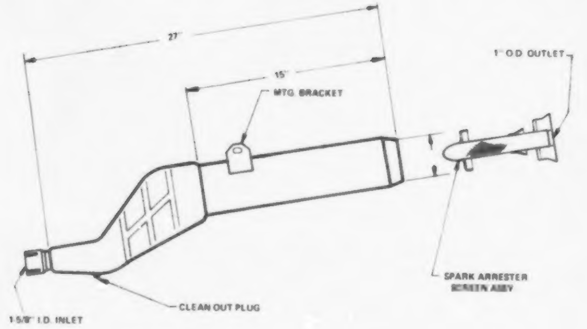

14-7/8"
MOUNTING BRACKET
4"
1-1/8" ID INLET
MOUNTING BRACKET
7/8" OD OUTLET

YHM 167A

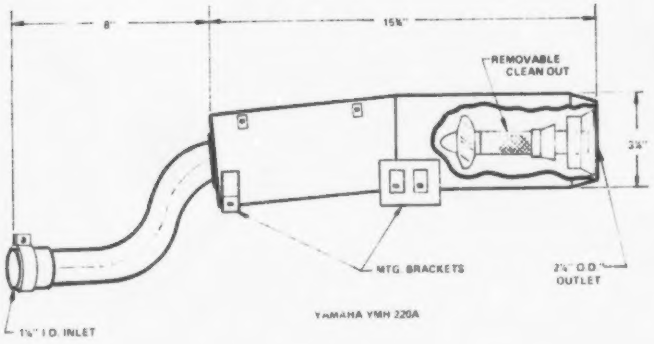

MTG. BKT.
2" O.D. OUTLET
21¼"
24 MESH SCREEN .028 OPENING
MTG. BKT.
1¼" I.D. INLET
3-3/8" DIA.
REMOVABLE CLEAN OUT
CLAMP
29½"

YHM 200

YAMAHA (Continued)

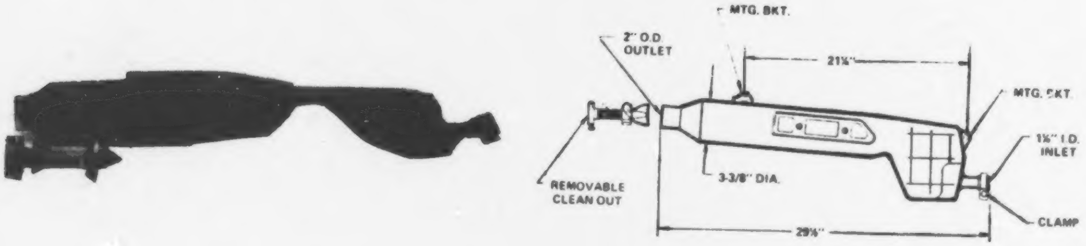

27"
15"
MTG. BRACKET
1" O.D. OUTLET
SPARK ARRESTER SCREEN ASSY
CLEAN OUT PLUG
1-5/8" I.D. INLET

YAMAHA YHM 220

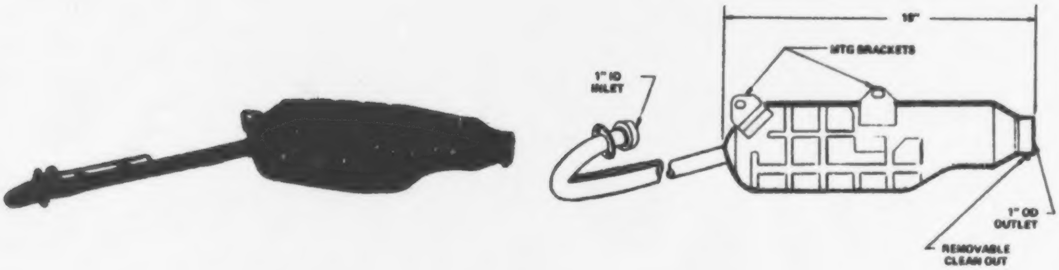

8"
15⅛"
REMOVABLE CLEAN OUT
3⅛"
MTG. BRACKETS
2⅛" O.D. OUTLET
1⅛" I.D. INLET
YAMAHA YMH 220A

220A

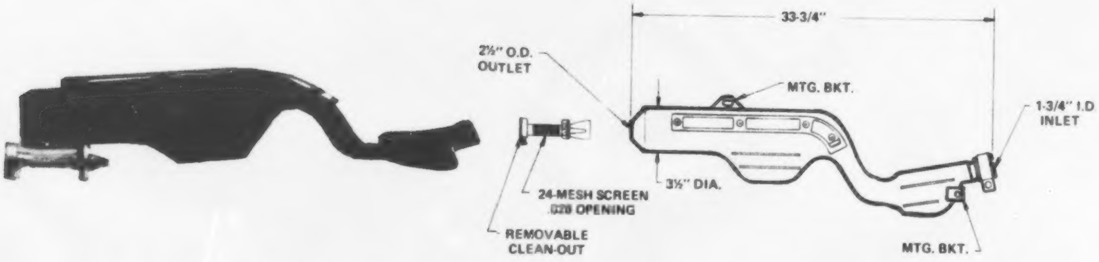
YAMAHA (Continued)


MTG. BKT.
2" O.D. OUTLET
21¼"
MTG. BKT.
1¾" I.D. INLET
REMOVABLE CLEAN OUT
3-3/8" DIA.
CLAMP
29¼"

YHM 200A

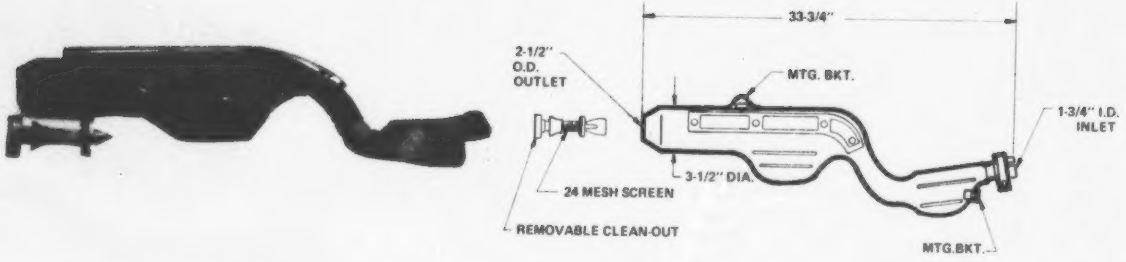

15"
MTG BRACKETS
1" ID INLET
1" OD OUTLET
REMOVABLE CLEAN OUT

YHM 200B

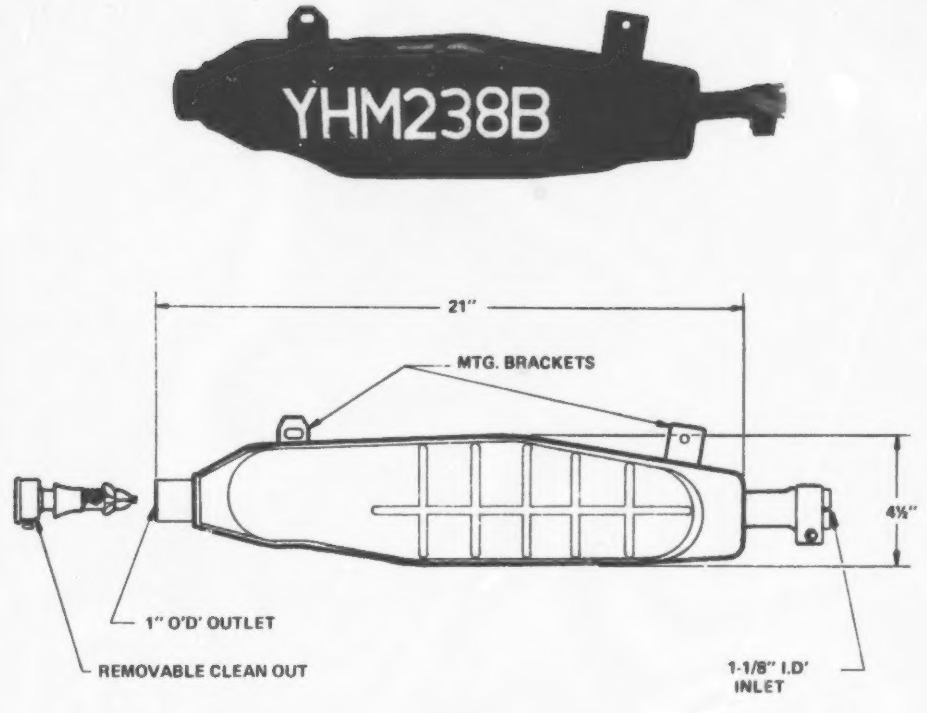

33-3/4"
2½" O.D. OUTLET
MTG. BKT.
1-3/4" I.D INLET
3½" DIA.
24-MESH SCREEN .028 OPENING
REMOVABLE CLEAN-OUT
MTG. BKT.

YHM 238

YAMAHA (Continued)

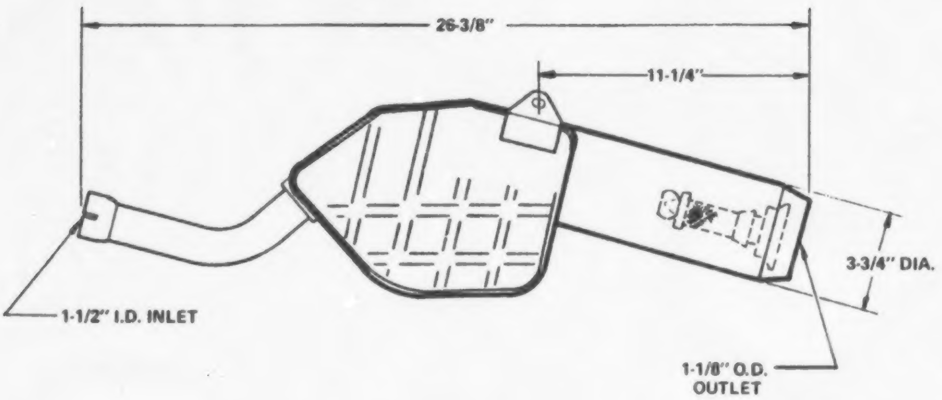

33-3/4"
2-1/2" O.D. OUTLET
MTG. BKT.
1-3/4" I.D. INLET
3-1/2" DIA.
24 MESH SCREEN
REMOVABLE CLEAN-OUT
MTG.BKT.

YHM 238A


YHM238B
21"
MTG. BRACKETS
4½"
1" O'D' OUTLET
REMOVABLE CLEAN OUT
1-1/8" I.D' INLET

YHM 238B

YAMAHA (Continued)

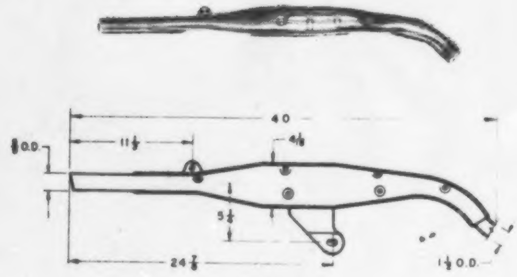

26-3/8"
11-1/4"
3-3/4" DIA.
1-1/2" I.D. INLET
1-1/8" O.D.
OUTLET

YHM 270

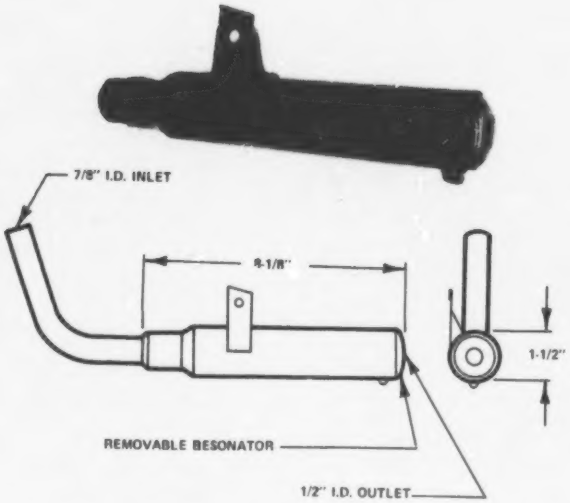
[illegible] AVAILABLE

YAMAHA

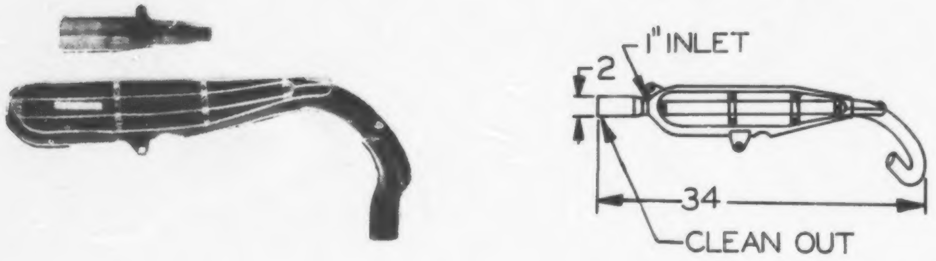
YAMAHA-KRIZMAN


40
11⅛
4⅛
⅞ O.D.
5¾
24⅞
1½ O.D.

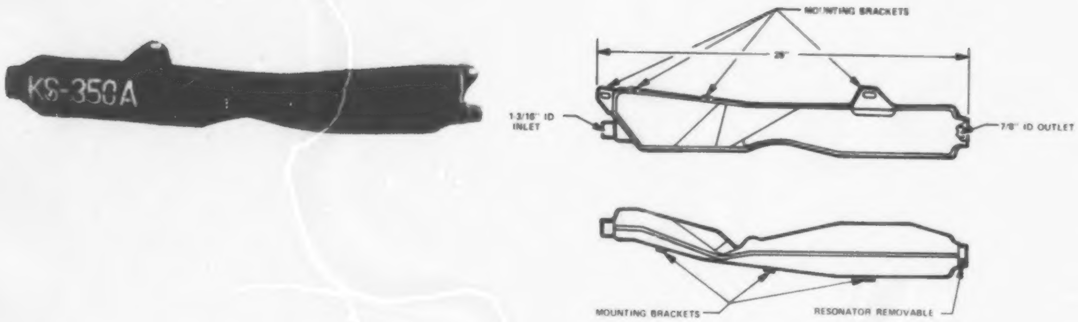
KS-250


7/8" I.D. INLET
9-1/8"
1-1/2"
REMOVABLE RESONATOR
1/2" I.D. OUTLET

KS-250A

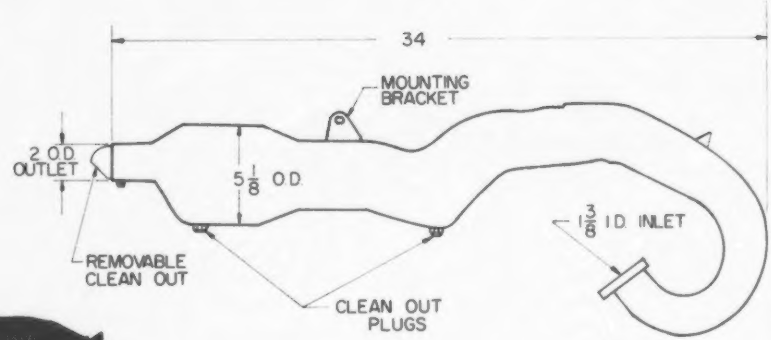

1" INLET
2
34
CLEAN OUT

KS-350

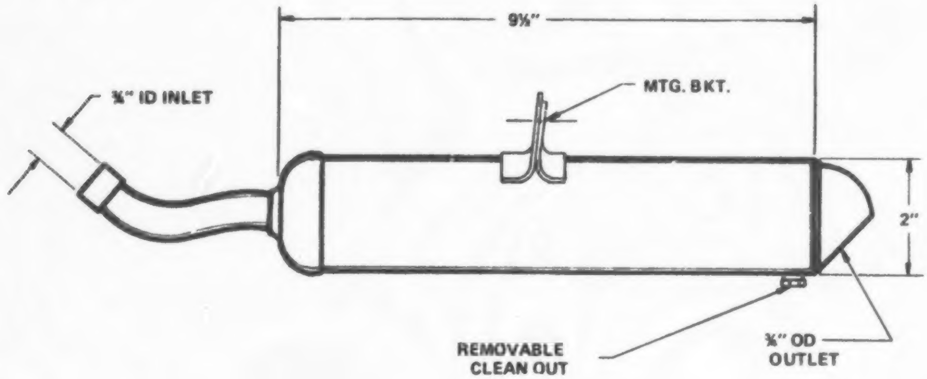

KS-350A
MOUNTING BRACKETS
28"
1-3/16" ID INLET
7/8" ID OUTLET
MOUNTING BRACKETS
RESONATOR REMOVABLE

KS-350A

YAMAHA-KRIZMAN (Continued)

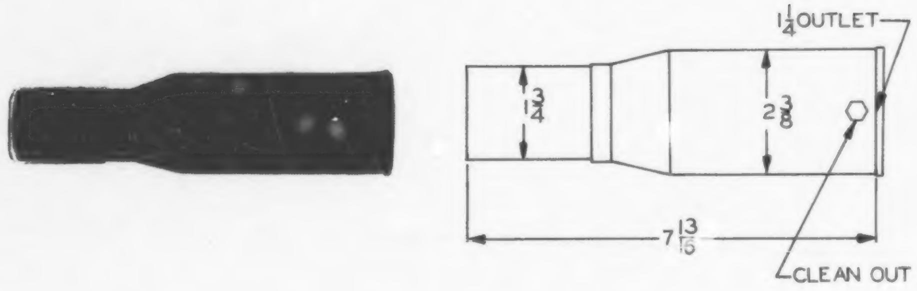

34
MOUNTING BRACKET
2 O.D. OUTLET
5 1/8 O.D.
1 3/8 I.D. INLET
REMOVABLE CLEAN OUT
CLEAN OUT PLUGS

KS 350B


9½"
¾" ID INLET
MTG. BKT.
2"
REMOVABLE CLEAN OUT
¾" OD OUTLET

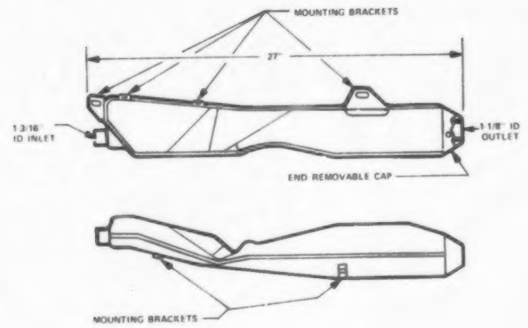
KS 350C

YAMAHA-KRIZMAN (Continued)

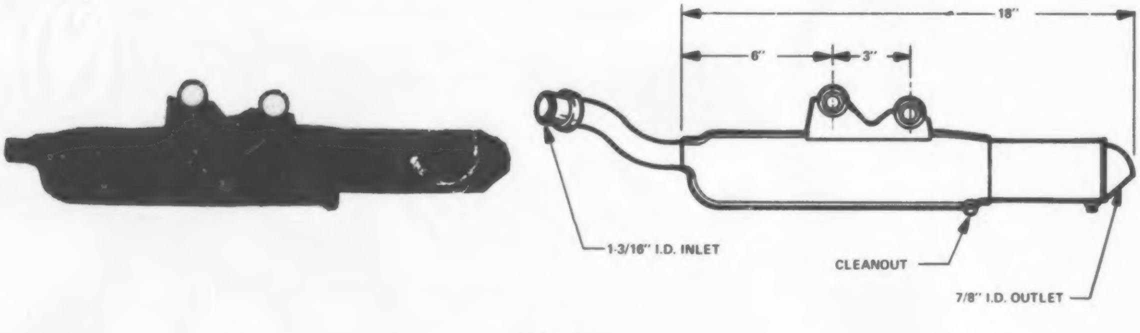

1 1/4 OUTLET
1 3/4
2 3/8
7 13/16
CLEAN OUT

KS-375

KS-375A

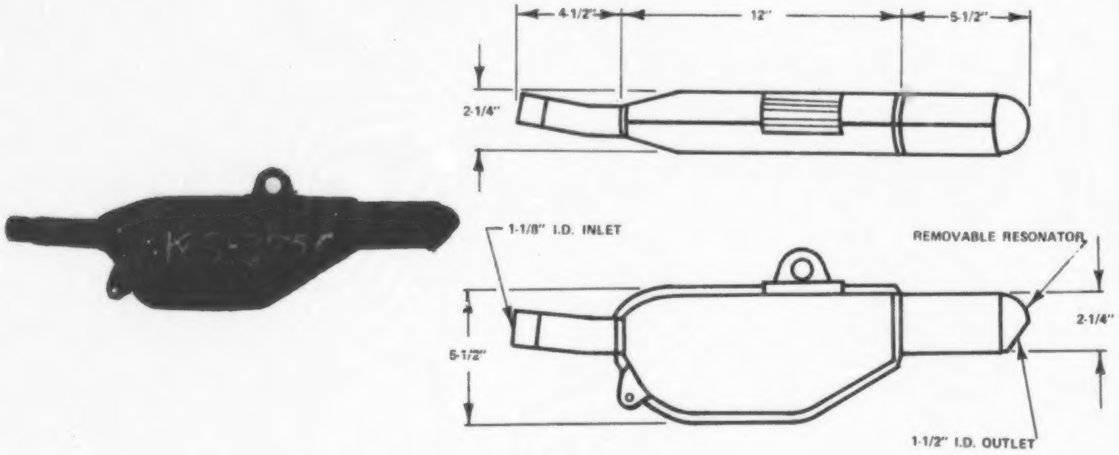

MOUNTING BRACKETS
27"
1 3/16" ID INLET
1 1/8" ID OUTLET
END REMOVABLE CAP
MOUNTING BRACKETS

KS-375A

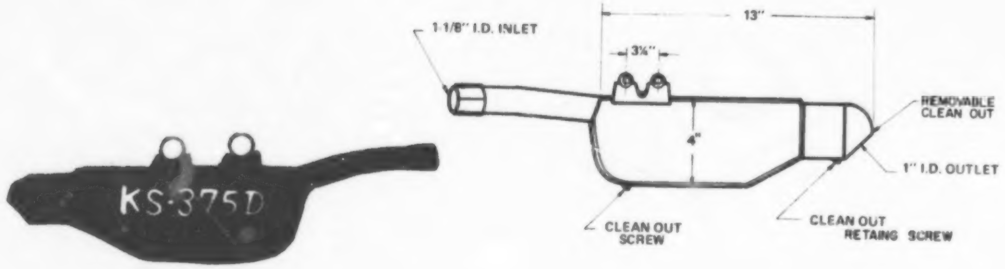

18"
6"
3"
1-3/16" I.D. INLET
CLEANOUT
7/8" I.D. OUTLET

KS-375B

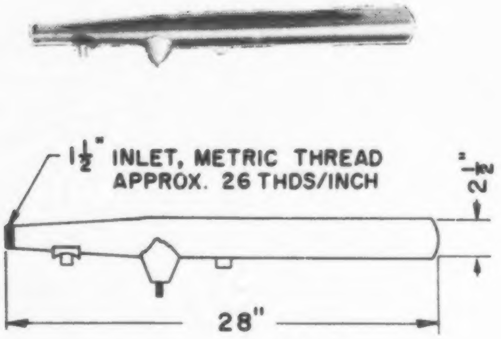
YAMAHA-KRIZMAN (Continued)


4-1/2"
12"
5-1/2"
2-1/4"
KS-375C
1-1/8" I.D. INLET
REMOVABLE RESONATOR
2-1/4"
5-1/2"
1-1/2" I.D. OUTLET

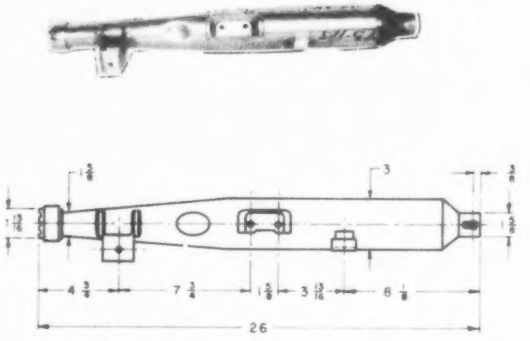
KS-375C


KS-375D
1-1/8" I.D. INLET
13"
3¼"
4"
REMOVABLE CLEAN OUT
1" I.D. OUTLET
CLEAN OUT SCREW
CLEAN OUT RETAING SCREW

KS 375D


1½" INLET, METRIC THREAD APPROX. 26 THDS/INCH
2½"
28"

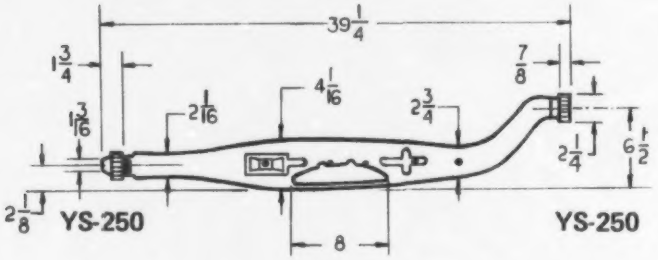
YS-80


1 5/8
3
3/8
1 13/16
1 3/8
4 3/4
7 3/4
1 5/8
3 13/16
8 1/8
26

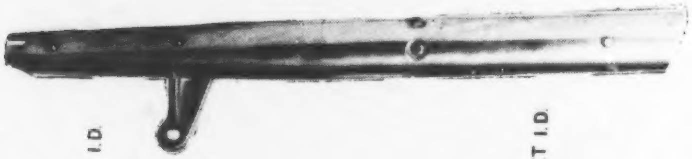
YS-125

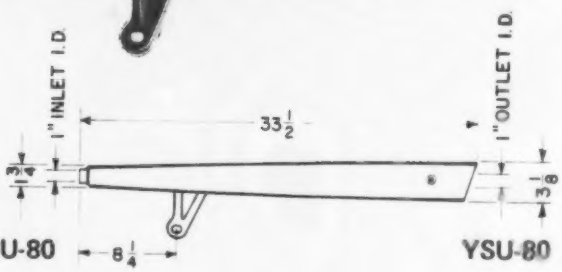
YAMAHA

YAMAHA-KRIZMAN (Continued)


39 1/4
1 3/4
7/8
1 3/16
2 1/16
4 1/16
2 3/4
2 1/4
6 1/2
2 1/8
8

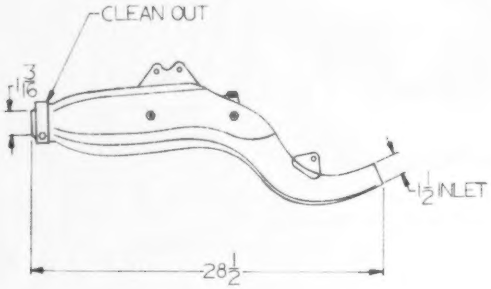
YS-250 **YS-250**




1" INLET I.D.
33 1/2
1" OUTLET I.D.
3/4
1 3/8
8 1/4

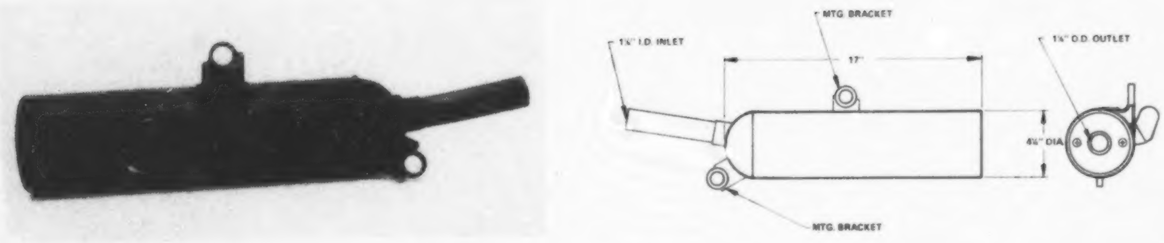
YSU-80 **YSU-80**

YAMAHA-SKYWAY


CLEAN OUT
1 3/16
1 1/2 INLET
28 1/2

520 **520**

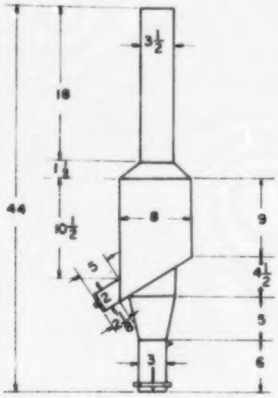
YAMAHA-KRIZMAN (Continued)


MTG. BRACKET
1¼" I.D. INLET
17"
1¼" O.D. OUTLET
4¾" DIA.
MTG. BRACKET

YAMAHA-KRIZMAN KS-375E

YUBA – FORD MOTOR CO.

8000


3½
18
1½
44
8
10½
9
5
4½
2
2⅛
5
3
6

8000

SPARK ARRESTER GUIDE

GENERAL PURPOSE SPARK ARRESTERS

–QUALIFIED AND RATED LIST–

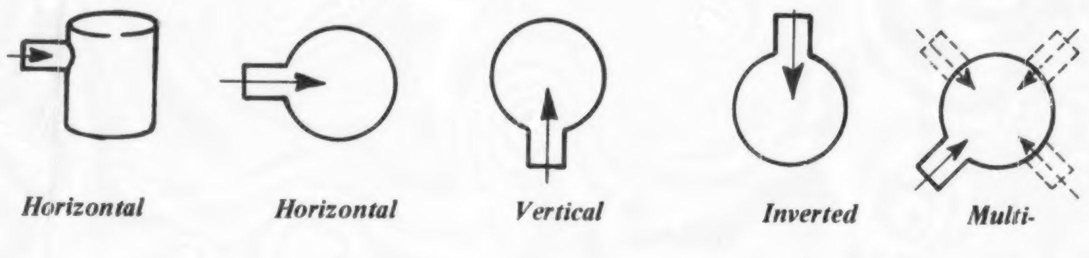
GENERAL PURPOSE SPARK ARRESTERS are tested against USDA Forest Service Standard 5100-1a or the latest revision of Society of Automotive Engineers (SAE) recommended practice SAE J350. Either of these documents establish the minimum performance and maintenance requirements of single position application general purpose spark arresters.

SCREEN-TYPE SPARK ARRESTERS are defined by USDA Forest Service Standard 5100-1a fall into a special category. They are intended for use on small engine applications. All exhaust products must pass through the screen, which has openings of 0.023-inch or less. The effective exhaust area of the screen (total area of all screen openings) shall not be less than 200 percent of the engine exhaust port area at its smallest cross section. Screen material shall be heat and corrosion resistant and shall provide at least 100 hours of service life. These are generally qualified for all the position described below. See "Screen-Type Spark Arresters," page 313 for chain saw application.

*QUALIFIED PRODUCTS LIST–*The list is dated and maintained currently by the Forest Service Equipment Development Center test facility, 444 East Bonita Avenue, San Dimas, California 91773. Distribution may be arranged through appropriate Regional or Supervisor's offices.

*MODEL NUMBER AND TRADEMARK–***The Standard requires that each arrester shall be permanently marked with the model number and the manufacturer's identification or trademark.** The words "Qualified" or "Approved" are not required, but the model number must match exactly. When the inlet and outlet of an arrester are not easily identified, they must be marked.

*APPLICATION POSITIONS–*Four general positions are considered–vertical, horizontal, inverted, and multi-position. The application is determined by the attitude of the inlet pipe irrespective of the main body position or direction of outlet. For example:



The qualified positions listed include only those tested. In some cases, the manufacturer may claim other positions, but test information at this date can neither support nor refute such claims. An arrester tilted more than 60° from its qualified operating position may not adequately arrest sparks. Therefore, arresters on mobile equipment shall not be mounted more than 45° from the qualified position.

RATED FLOW OF ARRESTER is the rate of test gas flow in cubic feet per minute (cfm) at which the corresponding back pressure is one pound per square inch. One (1) psi is the maximum desirable back pressure for most 4-stroke cycle applications. See column marked "Rated Flow."

Some 2-cycle engines may require higher back pressure. An arrester may be used above its rated flow provided it maintains qualifying arresting efficiencies at all levels of use. Arresters that do not have adequate efficiencies above their rated flow will be designated in the "Remarks" column and are not qualified to operate in applications where they may be inefficient. With this exception, a qualified arrester properly installed and maintained is acceptable legally regardless of size or rated flow. It is the owner's business if he chooses an arrester too large or too small even though the cost may be excessive or the back pressure too high.

TURBOCHARGERS QUALIFY–Turbochargers qualify as efficient spark arresters when all gases pass through the turbine wheel. The turbine wheel must be turning at all times, and there must be no exhaust by passes. A straight mechanical-driven supercharger does not qualify (see FSM 5113.32a-2).

DISCONTINUED MODELS will be called out under "Remarks."

LAWS AND REQUIREMENTS–Federal and local laws and administrative requirements prescribe when and where arresters are required. During periods of very high or extreme fire danger, arresters meeting the Standards will not give complete protection against exhaust spark fires. Additional measures, including shutdown of operations, may be required during such periods. Authority for special measures is provided for in Federal Regulations 36 CFR 251-.25 and 36 CFR 261.1, Item J.

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

QUALIFIED ARRESTERS FOR MOTORCYCLES OR TRAIL BIKES

(Horizontal Application Unless Noted Otherwise)

Model	*Rated*
Bombardier-Krizman KS-250	17
Bombardier-Krizman CA-950	186
Bombardier-Krizman CA-953 (30mm resonator)	114.4
Bombardier CA-952 (26mm resonator)	65.5
Bombardier CA-952 (30mm resonator)	100
Bombardier CA-952-1	71.8
Bombardier 1980 (22mm resonator)	61.5
Bombardier 1980 (26mm resonator)	65.5
Bombardier 1980 (28mm resonator)	65.5
Briggs & Stratton 391911*	25
Briggs & Stratton 391912*	25
Briggs & Stratton 391913*	50
Briggs & Stratton 392154*	81
Briggs & Stratton 392154A*	99
Briggs & Stratton 391915*	69
Briggs & Stratton 396800*	25
(For all Briggs & Stratton—see pages 18 thru 20)	
Coop 400A	53
Coop 500A	78
Coop 500A (for LT 125)	96.5
Coop 500B	103.2
Davis D-L260	140
Gill 3C (vertical only)	85
Gill 3CIP	85
Hapco 1AA (vertical only)	96
Hapco 1AAXH	76
Hapco 2AA (vertical only)	167
Hapco 2AAH	112

**Footnotes on p. 276*

Model	*Rated*
Harley-Davidson-Krizman H.D.-1	24
Harley-Davidson-Krizman H.D.-2	24
Harley-Davidson-Krizman H.D.-3	24
Harley-Davidson-Krizman KS-400	49
Harley-Davidson 65234-75P	24
Harley-Davidson 65463-75P	24
Harley-Davidson 65241-75P	24
Hodaka Ace 90D	26**
Hodaka-Krizman Ace 100	24
Honda 72	25**
Honda 175	18**
Honda 200	14
Honda 405	21
Honda 405A	20
Honda 408	32
Honda 503	47
Honda 1063	12
Honda-Krizman 103	18**
Honda-Krizman 104	27**
Honda-Krizman 105	27**
Honda-Krizman 106	12
Honda-Krizman 107	27**
Honda-Krizman 108	27**
Honda-Krizman 109	42
Honda-Krizman 111	27
Honda-Krizman 112	18
Honda-Krizman 115	19
Honda-Krizman 116	15
Honda-Krizman 203	27
Honda-Krizman 204	27
Honda-Krizman 205	27

(Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Rated*
Honda-Krizman 206	27
Honda-Krizman 207	20
Honda-Krizman 209	27
Honda-Krizman 210	35
Honda-Krizman 300	27
Honda-Krizman 301	22
Honda-Krizman 302	27
Honda-Krizman 303	31
Honda-Krizman 304	46
Honda-Krizman 305	33
Honda-Krizman 400	42
Honda-Krizman 401	33
Honda-Krizman 402	33
Honda-Krizman 404	42
Honda-Krizman 406	48
Honda-Krizman 407	80
Honda-Krizman 409	69
Honda-Krizman 409A	71
Honda-Krizman 410	70
Honda-Krizman 411	86
Honda-Krizman 412	87
Honda-Krizman 413	66
Honda-Krizman 500	42
Honda-Krizman 501	78
Honda-Krizman 502	36
Honda-Krizman 504	85
Honda-Krizman 505	46
Honda-Krizman 506	111
Honda-Krizman 507	58
Honda-Krizman 508 (with diffuser)	59.5
Honda-Krizman 508	152.7
(*NOTE*—Arrester qualified for use without diffuser. Diffuser fixing screws must be in place if diffuser is not installed.)	
Honda-Krizman 509	52.5
Honda-Krizman 600	26
Honda-Krizman 601	48
Honda-Krizman 700	52

**Footnotes on p. 276*

Model	*Rated*
Hooker 26281*	230
Hooker 26282*	192
Hooker 26283*	114
Hortstman-Krizman HE	27
Husquvarna F15-1041	94
Hutchins Freflo No. 1	135
J&R Krizman KS-350	58
J&R Krizman KS-500A	104
J&R Krizman KS-500C	86
J&R Krizman KS-650A	63
J&R Krizman KS-650	186
J&R Krizman KS-650 (Vertical)	180
J&R Krizman KS-800	122
Kawasaki-Krizman DX-200	78.2
Kawasaki-Krizman DX-250	72.9
Kawasaki-Krizman YS-80	24
Kawasaki-Krizman KD-400	42
Kawasaki-Krizman KG-250	18
Kawasaki-Krizman KG-250A	23
Kawasaki-Krizman KL-250C	90.8
Kawasaki-Krizman KS-350 KHI DOX080A	46
Kawasaki-Krizman KHI KE-250B	45
Kawasaki-Krizman KS-500 KDX175	49.3
Kawasaki-Krizman KS-350 KHI DX080C	34
Kawasaki-Krizman KS-500 KHI DX200A	64.1
Kawasaki-Krizman KS-500 KHI KL600	28.4
Kawasaki-Krizman KS-500 KHI LT110A	26.8
Kawasaki-Krizman KS-500 KHI LT160	26.8

(Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Rated*
Kawasaki-Krizman KS-500 KHI LT200A	48.1
Kawasaki-Krizman KS-500 KHI LT250A	50.2
Kawasaki-Krizman KS-500 KHI XT250	70.1
Krizman II-5H.34B***	21**
Krizman V-H I	92
Krizman V-H II	186
Krizman T-H100 or T-H100M (muffler)	21
Maico-Krizman KS-500/250.28.505.01	69.1
Murphy Muffler MM3^{S}2.5	240
Nelson T-9457	50
Nelson T-9458	50
Nelson T-9460	37
Nelson T-10291	33
Nelson T-10705	24
Nelson T-10895	18
Nelson T-10898	20
Nelson T-11601C	26
Nelson T-11708 (Vertical)	31
Nelson T-12761	39
Nelson T-13300	11
Powell No. "F"	27
Rupp 32004	24
Skyway 300	107
Skyway 510	60
Skyway 1000	40
Skyway 2500	74
Strader 200*	29
Strader 400	46**

Model	*Rated*
Super-Trapp T-99****(Multi-)	31
Super-Trapp T-100**** (Multi-)	243
Super-Trapp T-101**** (Multi-)	170
Super-Trapp T-102 (Multi-)	64
Suzuki-Krizman K-15	20
Suzuki-Krizman KS-250	27
Suzuki-Krizman KS-250 (for ALT 50)	17
Suzuki-Krizman KS-250 (for TM 75)	20
Suzuki-Krizman KS-250 (for TS 80)	23
Suzuki-Krizman KS-350-3	38.8
Suzuki-Krizman KS-350-3 (for LT 185)	29.5
Suzuki-Krizman KS-350-3 (for LT 250)	29.5
Suzuki-Krizman KS-351	50
Suzuki-Krizman KS-351	50
Suzuki-Krizman KS-400	84
Suzuki-Krizman KS-400 (for PE 250)	39
Suzuki-Krizman	47
Suzuki Sparester -1	87
Suzuki Sparester DR-400	87
Suzuki Sparester PE-175	87
Suzuki Sparester PE-250	87
Suzuki Sparester PE-400	87
Taylor 100*	26
Taylor 200*	37
Taylor 300*	37
Taylor 400*	26
Taylor 400A*	26
Taylor 750*	30
Taylor 750A*	46
Taylor 800*	64
Taylor 800* (See page	46
Taylor 900* (See page	57
Taylor 950*	50
Tillery T-124* (See page	45
Tillery T-234* (See page	26
Torque TQ 1000	24
Torque TQ 2000	34

Footnotes on p. 276

(Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	Rated	Model	Rated
Torque TQ 3000	43	Yamaha-Krizman KS-350	58
Torque TQ 3000A	42	Yamaha-Krizman KS-350A	53
Torque TQ 3000B	46	Yamaha-Krizman KS-350B	31.6
		Yamaha-Krizman KS-350C	23.4
Wintec 500	71	Yamaha-Krizman KS-375	79
		Yamaha-Krizman KS-375A	75
		Yamaha-Krizman KS-375B	55.1
		Yamaha-Krizman KS-375C	69.7
Yamaha YHM 200	49.5	Yamaha-Krizman KS-375D	71.2
Yamaha YHM 200A	49	Yamaha-Krizman KS-375E	63.2
Yamaha YHM 200B	63.6	Yamaha-Krizman YS-80	24
Yamaha YHM 220	44.5	Yamaha-Krizman YS-125	42
Yamaha YHM 238	63.5	Yamaha-Krizman YS-250	19
Yamaha YHM 238A	63.2	Yamaha-Krizman YSU-80	23
Yamaha YHM 238B	40.8	Yamaha-Skyway 520 Series 300	89**
Yamaha YHM 270	76.8		
Yamaha-Krizman KS-250	24	Xducer II	155
Yamaha-Krizman KS-250A	19.7	Xducer X-100	102

The arresters qualified above were tested under U.S. Department of Agriculture, Forest Service STANDARD FOR SPARK ARRESTERS FOR INTERNAL COMBUSTION ENGINES (Standard 5100-1a, April 1970, superseding Interim Standard No. 1, April 7, 1959). These qualified arresters are extracted from the "Qualified and Rated" list that follows.

Footnotes–

*Employs a screen component in the arrester section.

**The selection of flow rate at 1 psi as the rated flow of an arrester was based on the premise that this is the maximum desirable back pressure for most applications, although some 2-cycle engines require higher back pressure. An arrester may be used above its rated flow provided it maintains qualifying arresting efficiencies at all levels of use. Arresters that do not have adequate efficiencies above their rated flow will be designated by as asterisk (**) following the assigned flow rate and are not qualified to operate in applications where they may be inefficient.

***Model marked II-5H.34B qualified; those without the B failed.

****Tested with 18 discs. Flow will be lower with fewer discs. Nest discs so dimples interlock and tighten retainer bolt so discs are not loose. Frequent cleaning may be necessary to avoid plugging.

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Under U.S. Forest Service Standard 5100-1a, April 1970

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Air-Maze	4-FA	Vertical	625*	13	
	10-FA	Vertical	1270**	14	
	146-FA	Horizontal	1335	14	
	C19035-3	Vertical	140	14	
	C19035-3	Horizontal	120	14	
	C19035-4	Vertical	118	14	
	C19035-4	Horizontal	126	14	
	C19035-5	Vertical	220	14	
	C19035-5	Horizontal	217	14	
	C19035-6	Vertical	238	14	
	C19035-6	Horizontal	302	14	
	C19035-7	Vertical	333	14	
	C19035-8	Vertical	333	14	
	C19035-8	Horizontal	332	14	
	C19035-9	Vertical	640	15	
	C19035-10	Vertical	640	15	
Air-Maze	C19035-10	Horizontal	679	15	

*Air-Maze 4-FA arrester not recommended for flow above 300 cfm screen type—subject to plugging.
**Flow at .016 psi back pressure. Unit not rated at 1 psi; not acceptable for flows above 1270 cfm.
***Flow at 0.0 psi back pressure. Unit not rated at 1 psi.

AIR-MAZE DIVISION, Rockwell Standard Corporation
25000 Miles Road, Cleveland, Ohio 44120

AP Parts*	83933880	Vertical	1670	28	See Donaldson FCM09-0091
*	83933880	Horizontal	1630	28	See Donaldson FCM09-0091
*	83933892	Vertical	2660	28	See Donaldson FCM10-0016
*	83933892	Horizontal	2480	28	See Donaldson FCM10-0016
*	83931893	Vertical	296	15	
*	83931893	Horizontal	273	15	
*	83931908	Vertical	436	15	
*	83931908	Horizontal	427	15	
*	83931910	Vertical	644	15	
*	83931910	Horizontal	597	15	
*	83931921	Vertical	881	15	
*	83931921	Horizontal	842	15	
*	83931933	Vertical	1200	15	
AP Parts*	83931933	Horizontal	1177	15	

*Trademark consists of an X within a box ☒

AP PARTS COMPANY
1801 Spielbusch Avenue, Toledo, Ohio 43694

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Berkeley F70-01MC	Horizontal*	65	16	Primer-arrester

*Main body of arrester vertical but not inverted; used as primer-arrester on slip-on tanker pumper.

BERKELEY PUMP COMPANY
829 Bancroft Way, Berkeley, California 94710

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Bombardier-Krizman KS-250	Horizontal	17	16	
Bombardier-Krizman CA-950	Horizontal	186	16	
Bombardier-Krizman CA-953	Horizontal	114.4	17	30 mm resonator
Bombardier CA-952	Horizontal	100	17	30 mm resonator
Bombardier-CA-952	Horizontal	65.5	17	26 mm resonator
Bombardier CA-952-1	Horizontal	71.8		
Bombardier 1980	Horizontal	61.5	16	22 mm resonator
Bombardier 1980	Horizontal	65.5	16	16 mm resonator
Bombardier 1980	Horizontal	65.5	16	28 mm resonator

BOMBARDIER LIMITEE
Valcourt, Quebec, CANADA J0E 2L0

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Burgess-Manning SDMC-4	Horizontal	965	22	
Burgess-Manning SDMC-4	Vertical	1,069	22	
Burgess-Manning SDMC-LP-4	Horizontal	1,070	23	
Burgess-Manning SDMC-LP-4	Vertical	1,332	23	
Burgess-Manning SAT-4	Horizontal	790	21	
Burgess-Manning SAT-4	Vertical	195	21	

BURGESS-MANNING, INC.
Silencing Equipment Division
8101 Carpenter Freeway, Dallas, Texas 75247

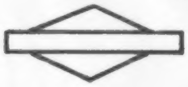
Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Briggs & Stratton* 391911	Multi-	25	18	Screen; 4-cycle, 4 hp
Briggs & Stratton* 391912	Multi-	25	18	Screen; 4-cycle, 4 hp
Briggs & Stratton* 391913	Multi-	50	19	Screen; 4-cycle, 8 hp
Briggs & Stratton* 391915	Horizontal	69	19	

(Briggs & Stratton Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Briggs & Stratton* 392154	**Multi-**	**81**	**19**	**Screen; 4-cycle, 16 hp**
Briggs & Stratton* 392154A	**Multi-**	**99**	**20**	**Screen; 4-cycle, 16 hp**
Briggs & Stratton 396800**	**Multi-**	**25**	**20**	**Screen; 4-cycle, 4 hp** *(See 391911 or 391912)*

*Trademark consists of a rectangle with a triangle above and below. 

**Outlet deflector is not permanently attached.

BRIGGS & STRATTON CORPORATION
P. O. Box 702, Milwaukee, Wisconsin 53201

Cal Tube 12583	**Multi-**	**74**	**24**	**Screen; 4-cycle**

CALIFORNIA TUBE PRODUCTS INC.
7040 Lankersheim Boulevard, North Hollywood, California 91605

Caterpillar 3B5498	**Vertical**	**380**	**24**	**Replaced 2F62229**
Caterpillar 3B7942	**Vertical**	**640**	**24**	
Caterpillar 3B7942	**Horizontal**	**597**	**24**	
Caterpillar 3B7964	**Vertical**	**680**	**24**	
Caterpillar 8N7074-1	**Horizontal**	**498**	**24**	**See Donaldson FMM12-0303**

CATERPILLAR TRACTOR COMPANY
Peoria, Illinois 61611

CEDCO Primer-Arrester No. 1	**Horizontal***	**65**	**25**	**Primer-arrester**
CEDCO Primer-Arrester No. 2	**Horizontal***	**144**	**25**	**Primer-arrester**

*Main body of arrester vertical but not inverted; used for primer-arrester applications as on pumpers of slip-on tankers.

CEDCO
501 West Foothill Boulevard, Azusa, California 91702

HALE FIRE PUMP COMPANY
Conshohocken, Pennsylvania 19428

AVAILABLE

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Clark CAC-2000	Horizontal	1584	26	

CLARK EQUIPMENT COMPANY OF CANADA LTD.
Talbot Street, St. Thomas, Ontario, CANADA, N5P 1H2

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Clark 6547049	Horizontal	180	26	
Clark 6551409	Vertical	205	26	
Clark 6552340	Vertical	209	26	

CLARK EQUIPMENT COMPANY–Melrose Division
Gwinner, North Dakota 58040

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Cone 8-D	Vertical	182	27	
Cone 10-D	Vertical	295	27	
Cone 12-D	Vertical	432	27	
Cone 390	Vertical	275	27	
Cone 1100	Vertical	310	27	
Cone 1500	Vertical	350	27	

DbA SILENCING, LTD.
33 East 7th Avenue, Vancouver 10, B.C., CANADA

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Coop 400A	Horizontal	52.6	29	
Coop 500A	Horizontal	78.0	29	
Coop 500A (for LT 125)	Horizontal	90.3	28	
Coop 500B	Horizontal	103.2	28	

COOP ENGINEERING INC.
13036D Los Nietos Road, Santa Fe Springs, California 90670

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Davis D-L260	Horizontal	140	30	

DAVIS ENGINEERING CO.–c/o Lanco Engine, Inc.
12915 Weber Way, P. O. Box 136, Hawthorne, California 90252

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Deere, John	–	–	–	See John Deere
Discojet	–	–	–	See Super-Trapp

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Donaldson FCM04-5123	Vertical	146	31	
FCM04-5123	Horizontal	131	31	
FCM04-5214	Vertical	146	31	See Donaldson FCM04-5123
FCM04-5214	Horizontal	131	31	See Donaldson FCM04-5123
FCM04-5220	Vertical	146	31	See Donaldson FCM04-5123
FCM06-0037**	Vertical	296	31	
FCM06-0037**	Horizontal	273	31	
FCM06-0038**	Vertical	120	31	
FCM06-0038**	Horizontal	126	31	
FCM06-5030**	Vertical	436	31	
FCM06-5030**	Horizontal	427	31	
FCM07-0068**	Vertical	644	31	
FCM07-0068**	Horizontal	597	31	
FCM07-0069**	Vertical	881*	31	
FCM07-0069**	Horizontal	842	31	
FCM07-0118	Vertical	644	31	Modified FCM07-0068
FCM07-0018	Horizontal	597	31	
FCM07-0122	Vertical	644	32	Modified FCM07-0068
FCM07-0122	Horizontal	597	32	Modified FCM07-0068
FCM07-0126	Vertical	644	32	Model class FCM07-0068
FCM07-0126	Horizontal	597	32	Model class FCM07-0068
FCM07-0139	Vertical	644	32	Model class FCM07-0068
FCM07-0139	Horizontal	597	32	Model class FCM07-0068
FCM08-0024**	Vertical	1200	32	
FCM08-0024**	Horizontal	1177	32	
FCM09-0091**	Vertical	1670	32	
FCM09-0091**	Horizontal	1630	32	
FCM09-1009	Vertical	1670	32	See Donaldson FCM09-0091
FCM09-1009	Horizontal	1630	32	See Donaldson FCM09-0091
FCM10-0016**	Vertical	2660	32	
FCM10-0016**	Horizontal	2480	32	
FMM03-2515	Vertical	27	32	
FMM05-0073	Vertical	66	33	
FMM06-0175	Vertical	207	33	
FMM09-0446	Horizontal	382	34	
FMM09-0510	Horizontal	510	34	
FMM12-0303	Horizontal	498	34	See Caterpillar 8N7074-1
SAU01-5068	Vertical	120	31	See Donaldson FCM06-0038
SAU01-5068	Horizontal	126	31	See Donaldson FCM06-0038
SAU02-0170	Vertical	296	31	See Donaldson FCM06-0037
Donaldson SAU02-0170	Horizontal	273	31	See Donaldson FCM06-0037

(Donaldson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Donaldson SAU02-5113	Vertical	436	31	See Donaldson FCM06-5030
SAU02-5113	Horizontal	427	31	See Donaldson FCM06-5030
SAU03-0196	Vertical	644	31	See Donaldson FCM07-0068
SAU03-0196	Horizontal	597	31	See Donaldson FCM07-0068
SAU03-5126	Vertical	881	31	See Donaldson FCM07-0069
SAU03-5126	Horizontal	842	31	See Donaldson FCM07-0069
SAU04-0369	Vertical	1200	32	See Donaldson FCM08-0024
SAU04-0369	Horizontal	1177	32	See Donaldson FCM08-0024
SAU05-0366	Vertical	1670	32	See Donaldson FCM09-0091
SAU05-0366	Horizontal	1630	32	See Donaldson FCM09-0091
SAU06-0467	Vertical	2660	32	See Donaldson FCM10-0016
Donaldson SAU06-0467	Horizontal	2480	32	See Donaldson FCM10-0016

*Early models may carry a -1 at the end of this number.

**Rating amended from 1000 to 881 cfm on 3/29/67.

DONALDSON COMPANY, INC.
1400 West 94th Street, Minneapolis, Minnesota 55431

Farr 20B	Vertical	435	35	Illegal above 435 cfm
Farr 30B	Vertical	605	35	
Farr 40B	Vertical	1060	35	
Farr 50B	Vertical	1730	35	
Farr Aspirator B16647-1	Vertical	625	35	
Farr Aspirator B17345	Vertical	560	36	
Farr Aspirator B18854	Vertical	615	36	
Farr Aspirator C15626	Vertical	221	36	
Farr Aspirator C16085	Vertical	221	36	
Farr Aspirator C22001	Vertical	270	37	

FARR COMPANY
P. O. Box 92187, Airport Station, Los Angeles, California 90009

Forester 12 x 330 (4")	Vertical	1350	38

WESTERN FIRE EQUIPMENT COMPANY
440 Valley Drive, Brisbane, California 94005

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model		*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Fuji	RG0 051	Multi-	12	39	Screen; 4-cycle, 1.2 hp
Fuji	RG0 120	Horizontal	22	39	4-cycle, 3.3 hp or smaller
EY 35/EY 40W		Horizontal	58	39	4-cycle, 10 hp or smaller

*Trademark

FUGI HEAVY INDUSTRIES, LTD.
7-2, 1-Chome, Nishishinjuku-Ku, Tokyo, Japan

Generac	30699	Inverted	47	40	
	31145	Inverted	24	40	
	33232	Horizontal	43	40	
	37924	Horizontal	50	40	NMC T-13304 approved as T-9458
	37936	Inverted	21	40	
	38560	Inverted	33.2	40	
	39081	Inverted	18	40	
	39247	Horizontal	50	40	NMC T-13304 approved as T-9458
	43951	Inverted	68	40	
	43952	Horizontal	74	40	
Generac	43953	Inverted	25	40	

GENERAC CORPORATION
Box 8, Waukesha, Wisconsin 53186

Gill	3C	Vertical	85	41
	3C (Mod. by FS)	Vertical	103	41
	3C IP	Horizontal	85	41
	4C IP	Horizontal	79.3	41
	5-C-20A	Vert & Hor	240	41
Gill	5-C-20A	Inverted	185	41

(Gill Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Gill	5-C-20B	Vert & Hor	257	42	
	5-C-23B	Vertical	255	42	
	5-C-23B	Horizontal	355	42	
	5-C-26B	Vertical	315	42	Discontinued
	5-CV-20	Vertical	268	42	
	5-CV-23	Vertical	300	42	
	5-CV-24	Vertical	300	42	
	6-C-24 (9")	Vertical	540	43	Discontinued
	6-C-24 (12")	Vertical	615	43	
	6-C-24 (12")	Horizontal	601	43	
	6-C-24 (12")	Inverted	680	43	
	6-C-26	Vertical	655	43	
	6-C-26	Horizontal	628	43	
	6-C-30	Vert & Hor	625	43	
	6-C-30	Inverted	665	43	
	6-C-34	Vertical	660	43	
	6-C-34	Horizontal	685	43	
	6-C-34	Inverted	808	43	
	6-C-2030 (12")	Vert & Hor	527	43	
	6-CV-24	Vertical	720	44	
	6-CV-26	Vertical	650	44	
	6-CV-30	Vertical	600	44	
	6-CV-34	Vertical	625	44	
	8-C-40	Hor & Inv	1170	44	
	8-CV-34	Vertical	800	45	
	8-CV-40	Vertical	1285	45	
	8-CV-50	Vertical	1405	45	
	8-CV-60	Vertical	1466	45	
	GSF-200	Vertical	355	46	
	GSF-300	Vertical	675	46	Discontinued
	GSF-400	Vertical	1050	46	Discontinued
	GSH-200	Horizontal	340	46	
	GSH-300	Horizontal	730	46	Discontinued
Gill	GSO-300	Vertical	1030	47	Discontinued

ERICKSON PRODUCTS COMPANY
Koch Road, Corte Madera, California 94925

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Gilson 36742	Multi-	81	48	Screen; 4-cycle, 16 hp

GILSON BROTHERS COMPANY
P. O. Box 152, Plymouth, Wisconsin 53073

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Gorman-Rupp 46211-018	Multi-	84	48	Screen; 2-cycle, 10 hp

GORMAN-RUPP COMPANY
P. O. Box 1217, Mansfield, Ohio 44901

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Hale 108-0230-02	Multi-	54	49	
Hale 108-0230-06	Multi-	54	49	Modified 108-0230-02, for use on one cylinder of an engine. An elbow has been added to the inlet to accommodate mounting.

HALE FIRE PUMP COMPANY
700 Spring Mill Avenue, Conshohocken, Pennsylvania 19428

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Hapco	1AA	Vertical	96	50	
	1AA S.A.M. 13-18*	Vertical	94	53	
	1AAXH	Horizontal	76	53	
	2AA	Vertical	167	50	
	2AAH	Horizontal	112	52	
	2AA S.A.M. 24-112*	Vertical	110	53	
	3AA	Vertical	205	50	
	3AA S.A.M. 36-2*	Vertical	174	53	
	3AAXH	Horizontal	258	54	Illegal above 258 cfm
	3H (Horizontal)	Horizontal	200	55	Discontinued
	4AA	Vertical	395	50	Discontinued
	4AA (Step Design Top)	Vertical	485	50	
	4AAH	Horizontal	417	52	
	4AA S.A.M. 48-3*	Vertical	317	53	
	5AA	Vertical	705	51	
	5AA (Step Design Top)	Vertical	660	51	
	5AA (Altered 5A)	Vertical	680	51	
	5AAH	Horizontal	620	52	
	5AAH S.A.M. 59-3*	Horizontal	527	52	
Hapco	5AA S.A.M. 59-3*	Vertical	466	52	

(Hapco Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Hapco	6A or 6H	Vertical	900	50	Discontinued
	6AA (4" outlet)	Vertical	717	51	
	6AAH	Horizontal	848	52	
	6AA S.A.M. 69-4*	Vertical	678	54	
	6AB (5" outlet)	Vertical	1168	54	
	7A or 7H	Vertical	1410	50	Discontinued
	7AB	Vertical	1555	54	
	7AC	Vertical	1210	55	Modified 7AB
	8AB	Vertical	2930	55	
	SASR-36H 3AAXH	Horizontal	171.8	56	3AAXH w/muffler section added
	SASR-48	Vertical	200	56	
	SASR-48H	Horizontal	252	56	
	SASR-59	Vertical	393	56	Inlet may be offset 2 inches
	SASR-69H	Horizontal	454	57	6AAH w/muffler section added
	SASR-559	Vertical	880	57	
Hapco	SAM 712	Vertical	1555	53	7AB w/muffler section added

*The Hapco Safety Muffler series listed above is identical to the Hapco AA series but has a muffler section added which extends the arrester body. Since the flow rate was affected by this charge, the muffler series has new flow rates assigned. ***NOTE:*** Hapco models were formerly labeled HARCO. Model designations may contain a dash followed by number(s) and letters. These signify the inlet size opening, application, and/or tread type. Moderate inlet size differences are acceptable from the dimensions indicated in the identification section of this Guide.

HARCO MANUFACTURING COMPANY
7700 S.W. 69th Avenue, Portland, Oregon 97233

Harley-Davidson-Krizman H.D.-1	Horizontal	24	58	
Harley-Davidson-Krizman H.D.-2	Horizontal	24	58	
Harley-Davidson-Krizman H.D.-3	Horizontal	24	58	
Harley-Davidson-Krizman KS-400	Horizontal	49	59	
Harley-Davidson 65234-75P	Horizontal	24	59	
Harley-Davidson 65241-75P	Horizontal	24	59	
Harley-Davidson 65463-75P	Horizontal	24	59	

HARLEY DAVIDSON MOTOR COMPANY, INC.
3700 W. Juneau Avenue, Milwaukee, Wisconsin 53201

Hodaka Ace 90D	Horizontal	26	60	Illegal above 26 cfm
Hodaka-Krizman ACE 100	Horizontal	24	60	

PACIFIC BASIN TRADING COMPANY
Athena, Oregon 97813

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model		*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Honda	**72**	**Horizontal**	**25.1**	**61**	**Illegal above 25.1 cfm**
	113	**Horizontal**	**6.0**	**61**	
	175	**Horizontal**	**17.8**	**61**	
	200	**Horizontal**	**14.2**	**61**	
	405	**Horizontal**	**21.0**	**62**	
	405A	**Horizontal**	**20.5**	**62**	
	408	**Horizontal**	**32.2**	**62**	
	503	**Horizontal**	**47**	**62**	
	1063	**Horizontal**	**12.3**	**63**	
	E-300	**Horizontal**	**9.7**	**63**	**Illegal above 9.7 cfm**
	E-400	**Horizontal**	**25.0**	**64**	
	E-600	**Horizontal**	**13.9**	**64**	
	S-350	**Multi-**	**22**	**65**	**Screen; 4-cycle, 3.5 hp**
	S-351	**Multi-**	**22**	**65**	**Screen; 4-cycle, 3.2 hp**
	S-352	**Multi-**	**62**	**65**	**Screen; 4-cycle, 10 hp**
	S-353	**Multi-**	**65**	**66**	**Screen; 4-cycle, 11 hp**
	S-354	**Multi-**	**30**	**67**	**Screen; 4-cycle, 5.5 hp**
	S-355	**Multi-**	**9**	**68**	**Screen; 4-cycle, 1.3 hp**
	S-356	**Multi-**	**30**	**69**	**Screen; 4-cycle, 5 hp**
	S-356A	**Multi-**	**30**	**69**	**Screen; 4-cycle, 5 hp**
	S-357	**Multi-**	**62**	**70**	**Screen; 4-cycle, 11 hp**
	S-358	**Multi-**	**14**	**71**	**Screen; 4-cycle, 2.2 hp**
	S-359	**Multi-**	**30**	**73**	**Screen; 4-cycle, 10 hp**
	S-360	**Multi-**	**62**	**74**	**Screen; 4-cycle, 12 hp**
	S-361	**Multi-**	**54**	**74**	**Screen; 4-cycle, 12 hp**
	S-362	**Multi-**	**22**	**75**	**Screen; 4-cycle, 5 hp**
	S-363	**Multi-**	**22**	**75**	**Screen; 4-cycle, 5 hp**
	S-364	**Multi-**	**36**	**75**	**Screen; 4-cycle, 8 hp**
	S-365	**Multi-**	**51**	**76**	**Screen; 4-cycle, 11 hp**
Honda-Krizman	**103**	**Horizontal**	**17.9**	**77**	**Illegal above 17.9 cfm**
	104	**Horizontal**	**27.0**	**77**	**Illegal above 27.0 cfm**
	105	**Horizontal**	**27.0**	**77**	
	106	**Horizontal**	**12.0**	**77**	
	107	**Horizontal**	**27.0**	**78**	
	108	**Horizontal**	**16.3**	**78**	
	109	**Horizontal**	**41.5**	**78**	
	111	**Horizontal**	**26.6**	**79**	
	112	**Horizontal**	**17.8**	**79**	
	115	**Horizontal**	**19.2**	**79**	
Honda-Krizman	**116**	**Horizontal**	**15.1**	**80**	

(Honda-Krizman Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Honda-Krizman 203	**Horizontal**	**27.0**	**80**	
204	**Horizontal**	**27.0**	**81**	
205	**Horizontal**	**27.0**	**81**	
206	**Horizontal**	**27.0**	**81**	
207	**Horizontal**	**19.6**	**82**	
209	**Horizontal**	**27.0**	**82**	
210	**Horizontal**	**35**	**82**	
300	**Horizontal**	**27.0**	**83**	
301	**Horizontal**	**22.4**	**83**	
302	**Horizontal**	**26.9**	**83**	
303	**Horizontal**	**31.1**	**84**	
304	**Horizontal**	**46.0**	**84**	
305	**Horizontal**	**32.7**	**84**	
306	**Horizontal**	**37.5**	**85**	
400	**Horizontal**	**42.0**	**86**	
401	**Horizontal**	**42.0**	**86**	
402	**Horizontal**	**33.2**	**86**	
404	**Horizontal**	**41.9**	**87**	
406	**Horizontal**	**48**	**87**	
407	**Horizontal**	**80**	**87**	
409	**Horizontal**	**69**	**88**	
409A	**Horizontal**	**71**	**88**	**Modified 409**
410	**Horizontal**	**70**	**89**	
411	**Horizontal**	**86**	**89**	
412	**Horizontal**	**87**	**89**	
413	**Horizontal**	**66**	**90**	
500	**Horizontal**	**42.0**	**90**	**With or without heat shield**
501	**Horizontal**	**78.2**	**90**	
502	**Horizontal**	**36.2**	**91**	
504	**Horizontal**	**85**	**91**	
505	**Horizontal**	**46**	**91**	
506	**Horizontal**	**111**	**92**	
507	**Horizontal**	**58.3**	**92**	
508*	**Horizontal**	**152.7**	**92**	
508	**Horizontal**	**59.5**	**92**	**With diffuser**
508	**Horizontal**	**97**	**93**	**With curved outlet**
Honda-Krizman 509	**Horizontal**	**52.5**	**94**	

(Honda-Krizman Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Honda-Krizman 600	Horizontal	26.2	94	
601	Horizontal	48	94	
Honda-Krizman 700	Horizontal	52	95	

*Arrester qualified for use without diffuser. Diffuser fixing screws must be in place if diffuser not installed.

AMERICAN HONDA MOTOR COMPANY, INC.
Box 50, Gardena, California 90247

Hooker 26281	Multi-	230	96	Screen; 2-cycle, 44 hp
Hooker 26282	Multi-	192	96	Screen; 2-cycle, 30 hp
Hooker 28283	Multi-	114	96	Screen; 2-cycle, 15.6 hp

HOOKER INDUSTRIES INC.
1009 Brooks Street, Ontario, California 91762

Horstman-Krizman HE*	Horizontal	27	97

*Types A thru E provide various inlet dimensions and shapes.

HORSTMAN MANUFACTURING COMPANY, INC.
730 East Huntington Drive, Monrovia, California 91016

Hutchins Freflo No. 1	Horizontal	135	98

MCM MANUFACTURING COMPANY
601 South East Street, Anaheim, California 92805

Husqvarna F15-1041	Horizontal	94	99
Husqvarna-Krizman KS-500D	Horizontal	91	100

HUSQVARNA MOTORCYCLE COMPANY, INC.
4925 Mercury Street, San Diego, California 92111

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
IHC 70769C1	Vertical	305	101	
IHC 829640C91	Inverted	213	101	
IHC 561217C92	Vertical	485	101	
IHC 677817R91	Vertical	176	101	
IHC 563507C91	Vertical	380	101	
IHC 829176C91	Inverted	178	101	

INTERNATIONAL HARVESTER COMPANY–Farm Equipment Division
South 600 County Line Road, Hinsdale, Illinois 60501

J&R Krizman KS-350	Horizontal	58	102	
J&R Krizman KS-500A	Horizontal	104	102	
J&R Krizman KS-500C	Horizontal	86	102	
J&R Krizman KS-650	Horizontal	186	102	
J&R Krizman KS-650A	Horizontal	63	103	
J&R Krizman KS-650V	Vertical	180	104	
J&R Krizman KS-800	Horizontal	122	104	

J&R MANUFACTURING COMPANY
7738 Scout Avenue, Bell Gardens, California 90201

John Deere AH-75693	Horizontal	213	105	
AH-75694	Horizontal	348	105	
AH-75695	Horizontal	394	105	
AH-80388	Vertical	382	105	
AH-84965	Horizontal	505	105	
AH-87289	Horizontal	324	105	
AT-32701	Vertical	148	105	
AT-33686	Vertical	146	105	
John Deere AT-33686	Horizontal	148	105	

JOHN DEERE HARVESTER WORKS
East Moline, Illinois 61244

Kawasaki FA76D	Multi-	12	106	Screen; 4-cycle, 1.4 hp
Kawasaki FA130D	Multi-	20	106	Screen; 4-cycle, 2.6 hp
Kawasaki FA210D	Multi-	30	106	Screen; 4-cycle, 4.5 hp

(Kawasaki Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Kawasaki KG-550	Horizontal	22	107	
Kawasaki KG-4000	Multi-	51	110	Screen; 4-cycle, 8.2 hp
Kawasaki KG-5000	Multi-	60	110	Screen; 4-cycle, 10 hp
Kawasaki 3951/2	Horizontal	32.2	107	
Kawasaki 3951/2A	Multi-	20	107	Screen; 4-cycle, 3.2 hp
Kawasaki 3964/5/6	Horizontal	31	108	Screen; 4-cycle, 5 hp
Kawasaki FG 200D/FG 300D	Horizontal	49	109	Screen; 4-cycle, 6.8 hp
Kawasaki KHI-KL250	Horizontal	42	118	
Kawasaki-Krizman KS-350 KHI DX080C	Horizontal	34	115	
Kawasaki-Krizman KS-500 KHI DX200A	Horizontal	64.1	115	
Kawasaki-Krizman KS-500 KHI KL600	Horizontal	28.4	116	
Kawasaki-Krizman KS-500 KHI LT110A	Horizontal	26.8	115	
Kawasaki-Krizman KS-500 KHI LT160	Horizontal	26.8	115	See KHI LT110A
Kawasaki-Krizman KS-500 KHI LT200A	Horizontal	48.1	114	See DX200A
Kawasaki-Krizman KS-500 KHI LT250A	Horizontal	50.2	114	
Kawasaki-Krizman KS-500 KHI XT250	Horizontal	70.1	116	
Kawasaki-Krizman DX-200	Horizontal	78.2	112	
DX-250	Horizontal	72.9	112	
YS-80	Horizontal	24	111	
KG-250	Horizontal	18	111	
KG-250A	Horizontal	23	111	
KL-250C	Horizontal	90.8	113	
KS-350 KHI-DX080A	Horizontal	46.5	117	
KD-400	Horizontal	42	117	
KS-500 KDX 175	Horizontal	49.3	113	
KHI KE-250B	Horizontal	45	117	
Kawasaki-Krizman KHI KL6	Horizontal	70	118	

KAWASAKI MOTORS CORPORATION, USA
P. O. Box 11447, Santa Ana, California 92711

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
K.C.F.D. 1		Horizontal	65	119	Primer-arrester

KERN COUNTY FIRE DEPARTMENT
1025 Golden State Highway, Bakersfield, California 93301

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Kittell	S 1½A	Vertical	146	121	
	S 2A	Vertical	150	121	
	S 2½A	Vertical	370	121	
	S 3	Vertical	415	120	
	S 3A	Vertical	468	121	
	S 4	Vertical	935	120	
	S 4A	Vertical	1008	121	
	S 5	Vertical	1100	120	
	S 5A	Vertical	1150	121	Illegal above 1150 cfm
	S-T-1½	Vertical	136	122	
	S-T-2	Vertical	211	122	
	S-T-2½	Vertical	406	122	
	S-T-3	Vertical	497	122	
	S-T-3½	Vertical	616	122	
	S-T-4	Vertical	960	122	
	S-T-5	Vertical	1312	122	
	1010 HT	Vertical	500	119	
Kittell	3510-SA 1¼	Horizontal	59.5	123	

KITTELL MUFFLER & ENGINEERING, INC.
1977 Blake Avenue, Los Angeles, California 90039

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Krizman	11-5H.34B*	Horizontal	21	124	Illegal above 21 cfm
Krizman	V-H-1	Horizontal	92	124	
Krizman	V-H 11	Horizontal	186	124	
Krizman	T-H100 or T-H100M	Horizontal	21.5	124	
Maico-Krizman	KS-500/250.28.505.01	Horizontal	69.1	125	

*Model marked II-5H.34B "Qualified," those without B "Failed . . ."

KRIZMAN ENGINEERING & SALES COMPANY (KESCO)
127 Gale Hill, Lindsay, California 93247

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model		Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Maremont*	4305	Vertical	296	126	
*	4305	Horizontal	273	126	
*	4306	Vertical	436	126	
*	4306	Horizontal	427	126	
*	4307	Vertical	644	126	
*	4307	Horizontal	597	126	
*	4308	Vertical	881	126	
*	4308	Horizontal	842	126	
*	4604	Vertical	1200	126	
*	4604	Horizontal	1177	126	
*	4605	Vertical	1670	126	
Maremont*	4605	Horizontal	1630	126	

*Maremont trademark consists of a plus mark within an outer circle. ⊕

MAREMONT CORPORATION
200 East Randolph Drive, Chicago, Illinois 60601

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Maxim 2" MSA1	Horizontal	218	127	

AMF BEAIRD, INC.
P. O. Box 1115, Shreveport, Louisiana 71102

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
McCulloch MPP 1500E	Multi-	21	128	Screen; 4-cycle, 2.7 hp
McCulloch MPP 2300E	Multi-	30	128	Screen; 4-cycle, 5.5 hp
McCulloch MPP 3500E	Multi-	42	129	Screen; 4-cycle, 5.5 hp
McCulloch MPP 600E/800E	Multi-	12	128	Screen; 4-cycle, 1.4 hp

**Trademark*

McCULLOCH CORPORATION
5433 Beethoven Street, P. O. Box 92180, Los Angeles, California 90009

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Murphy Muffler MM3^3 2.5	Multi-	240	130	Screen; 2-cycle, 29.4 hp

MURPHY MUFFLER COMPANY, INC.
9508 Rush, S. El Monte, California 91733

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Nelson	T-6277	Vertical	154	131	
	T-7033	Vertical	250	131	
	T-7359	Vertical	245	131	
	T-7515	Vertical	335	131	
	T-8680	Vertical	262	131	
	T-8714	Vertical	429	132	
	T-8714	Horizontal	417	132	
	T-9098	Horizontal	141	132	Illegal above 141 cfm
	T-9099	Vertical	196	132	
	T-9099	Horizontal	194	132	
	T-9213	Vertical	204	132	
	T-9213	Horizontal	208	132	
	T-9219	Vertical*	164	133	
	T-9220	Vertical*	170	133	
	T-9304	Vertical	438	133	
	T-9356	Vertical	450	133	
	T-9356	Horizontal	474	133	
	T-9370	Vertical	198	133	
	T-9457	Horizontal	50	134	
	T-9458	Horizontal	50	134	
	T-9460	Horizontal	37	134	
	T-9489	Inverted	76	134	
	T-9605	Vertical	146	134	See John Deere AT-33686
	T-9605	Horizontal	148	134	See John Deere AT-33686
	T-9932	Vertical	426	135	
	T-9932	Horizontal	415	135	
	T-9995	Vertial*	31	135	
	T-10093	Horizontal	19.6	135	Illegal above 19.6 cfm
	T-10115	Vertical	227	136	
	T-10115	Horizontal	232	136	
	T-10126	Vertical	122	136	
	T-10213	Horizontal	213	136	
	T-10214	Horizontal	348	137	
	T-10215	Horizontal	394	137	
	T-10244	Horizontal	520	137	
	T-10291	Horizontal	33	137	
	T-10374	Vertical	176	138	
Nelson	T-10409	Horizontal	21	138	

*Body horizontal to receive vertical exhaust.

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Nelson	T-10705	Horizontal	24	138	
	T-10792	Horizontal	67	139	
	T-10860	Horizontal	100	139	
	T-10895	Horizontal	18	139	
	T-10897	Vertical*	112	140	
	T-10898	Horizontal	20	140	
	T-10956	Inverted	808	140	
	T-10968	Vertical	148	141	
	T-11068C	Inverted	47	141	
	T-11145	Vertical	382	141	
	T-11159	Inverted	24	141	
	T-11336	Vertical*	239	142	
	T-11336	Horizontal**	239	142	
	T-11337	Vertical	308	142	
	T-11424	Inverted	63	142	
	T-11601C	Horizontal	26	143	
	T-11606	Horizontal	43	143	
	T-11668	Vertical	164	143	
	T-11708 (P/N T-118992)	Vertical	31	144	
	T-11730H	Horizontal	13	144	
	T-11842	Inverted	808	140	Same as T-10956
	T-11915	Horizontal	30	144	
	T-11927	Horizontal	324	144	
	T-11976	Vertical	125	145	
	T-12499	Horizontal	505	145	
	T-12502	Vertical	227	145	Approved as T-10115
	T-12502	Horizontal	232	145	Approved as T-10115
	T-12760B	Inverted	21	146	
	T-12761	Inverted	38	146	
	T-12818	Vertical	305	146	
	T-12825F	Inverted	28	147	℄ or offset outlet tube, added clean out plug
	T-12863	Horizontal	92	147	
	T-13109	Horizontal	210	147	
	T-13300	Horizontal	11	148	
	T-13304 (Generac 39247)	Horizontal	50	148	Approved as T-9458
	T-13376	Horizontal	50	149	Approved as T-9458
Nelson	T-13473	Horizontal	50	149	Approved as T-9458

*Body horizontal to receive vertical exhaust.

**Body horizontal.

(Nelson Models Continued)

QUALIFIED AND RATED LIST

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Nelson	T-13473	Horizontal	180	149	
	T-13502	Horizontal**	640	149	Two horizontal inlets
	T-13529	Horizontal	69	149	
	T-13529	Horizontal	69	149	
	T-13559	Horizontal	17	149	
	T-13572	Inverted	18	149	
	T-13651	Vertical	485	150	
	T-13716	Vertical	425	150	
	T-13846	Vertical	176	151	
	T-13919	Vertical*	216	151	
	T-13933	Inverted*	93	151	
	T-13934	Vertical	206	152	
	T-13935	Vertical	219	152	New Holland No. 285187
	T-13940	Inverted**	125	153	
	T-13944	Horizontal	33	153	Approved as T-10291
	T-13977	Vertical	205	153	
	T-13978	Vertical	166	154	
	T-13979	Vertical	166	154	
	T-13994	Inverted	213	154	
	T-13995	Vertical	382	155	
	T-13995	Horizontal	388	155	
	T-13999	Inverted**	30	155	
	T-14000	Inverted**	42	155	Two inlets
	T-14002	Horizontal	11	156	Body vertical
	T-14005	Vertical	380	156	
	T-14066	Vertical	204	156	Approved as T-9213
	T-14066	Horizontal	208	156	Approved as T-9213
	T-14090	Horizontal**	59	156	
	T-14099	Inverted	178	157	
	T-14105	Horizontal	169	157	
	T-14106	Horizontal	69	157	Approved as T-1352
	14110	Vertical	435	158	
	T-14110B	Vertical	421	158	
	14113	Vertical	182	158	
	T-14116	Horizontal**	51	158	
	T-14123	Horizontal**	99	159	
	T-14125	Inverted**	50	159	
	T-14214	Horizontal	153	159	
	14217	Horizontal	185.5	172	
Nelson	T-14217	Horizontal	183	160	

*Body horizontal to receive vertical exhaust.

**Body horizontal.

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Nelson	T-14219	Vertical	300	160	
	T-14220	Vertical	683	160	Two inlets; one outlet
	T-14222	Vertical	225	161	
	T-14223	Horizontal	150	161	
	T-14224	Vertical	170	161	
	T-14315	Inverted**	68	162	
	T-14316	Horizontal**	74	163	
	T-14321	Inverted**	25	163	
	T-14327	Vertical	505	163	Approved as T-12499
	T-14334	Vertical*	561	163	With eductor tube
	T-14334	Horizontal	543	163	Body vertical
	T-14382	Horizontal	520	164	Approved as T-10244
	14390	Vertical	111	172	
	T-14402	Horizontal	147	164	
	T-14403	Horizontal	155	164	
	T-14406	Horizontal	69	164	Approved as T-13529
	T-14415	Vertical**	205	164	
	T-14425	Horizontal	99	164	Approved as T-14123
	T-14529	Vertical	275	165	
	14572	Horizontal	167	165	
	T-14630	Horizontal	240	165	
	T-14631	Vertical	315	166	
	T-14671	Horizontal	147	166	
	T-14688	Horizontal	75	166	Body vertical
	T-14754	Horizontal	261	166	
	T-14816	Horizontal	210	167	
	T-14853	Inverted	69	167	See ONAN 155-1485
	T-14907	Vertical*	209	167	
	15064A	Vertical	244	172	
	T-15077	Inverted	46.5	167	
	T-15078	Horizontal	47.5	168	
	T-15079	Horizontal	57.0	168	
	T-15080	Horizontal	67.0	168	
	T-15215	Horizontal	136	168	
	T-15341	Horizontal	92.0	169	
	15514	Inverted	615	169	
	15567	Inverted	35	169	
	T-15611	Horizontal	65.0	170	
	T-15688	Horizontal	513	170	Body vertical
Nelson	T-15689	Horizontal	618	170	Body vertical

*Body horizontal to receiververtical exhaust.

**Body horizontal.

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Nelson	15730	Horizontal	35	171	Modified T-14321
	15731	Horizontal	42	171	
	15818	Vertical	112	173	
	15870	Inverted	99	173	Modified T-14123
	15876	Vertical	348	173	
	15893	Inverted	41.5	174	See ONAN 155-1520
	15934	Horizontal	95	174	
	15935	Horizontal	71	174	
	15982	Horizontal	62.5	174	
	15983	Inverted	41.5	174	See ONAN 155-1520
				174	
	16001	Vertical	750	175	
	16006	Horizontal	112	175	
	16011	Horizontal	50	175	
	16025	Vertical	196	176	
	16068	Horizontal	325	176	
	16152	Horizontal	148	176	
	16170	Vertical	588	177	
	16297	Horizontal	71	177	
	16300	Horizontal	81	177	
	16301	Horizontal	59	178	
	16302	Horizontal	150	178	
	16304	Horizontal	62	178	
	16361	Inverted	43	179	
	16362	Inverted	46	179	
	16460	Inverted	61	179	
	16504	Vertical	640	180	
	16506A	Vertical	258	180	
	16507A	Vertical	440	180	
	16538	Vertical	282	181	
	16547	Vertical	194	181	
	16572	Horizontal	108	181	
	16619	Inverted	105	182	
	16628	Horizontal	105	182	
	16667	Inverted	35.4	182	
	16752	Vertical	75	183	
	16825	Horizontal	79	183	
Nelson	16828	Horizontal	87	183	

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Nelson	16868	Horizontal	206	184	
	16888	Vertical	140	184	
	16932	Horizontal	160	184	
	16956	Horizontal	108	185	
	16986	Vertical	102	185	
	16988	Horizontal	116	185	
	16989	Horizontal	54	186	Illegal above 54 cfm
	16990	Vertical	100	186	
	16990A	Vertical	100	186	Same as 16990 except for outlet rotational angle length
	17005	Vertical	558	187	
	17043	Horizontal	67.5	187	
	17088	Horizontal	57.3	187	
	17112	Inverted	31	188	
	17123	Vertical	192	188	
	17185	Inverted	170	188	
	17254	Horizontal	386	188	
	17334	Horizontal	122	189	
	17371	Vertical	130.5	189	
	17410	Horizontal	95	190	Inlet may be smaller than indicated
	17470	Horizontal	65	190	
	17480	Horizontal	420	190	
	17533	Horizontal	68.5	191	
	17622	Horizontal	89.0	191	
	17657	Vertical	226	191	
	17674	Inverted	150	192	
	17695	Vertical	143	192	
	17701	Horizontal	1044	192	
	17746	Vertical	106.5	193	
	17747	Horizontal	89	193	
	17749	Horizontal	97	193	
	17750	Horizontal	141	194	
	17765	Vertical	81.1	194	
	17898	Horizontal	46.2	194	
	17899	Horizontal	754.2	195	
	17973	Vertical	357	195	
	17974	Vertical	454	195	
Nelson	17998	Vertical	78	196	

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Nelson	18012	Horizontal	94.0	190	See 17410 for drawing & photo
	18018	Vertical	455	196	
	18031	Inverted	110.3	196	
	18090	Horizontal	700	197	
	18289	Inverted	74.6	197	
	18433	Horizontal	165	197	
	18493	Horizontal	94.0	190	See 17410 for drawing & photo
	18528	Horizontal	74	198	
	18528A	Horizontal	69.8	198	
	18631	Vertical	83.0	198	
	18642	Horizontal	576	199	
	18731	Horizontal	90	199	
	18798	Vertical	77	200	
	18875	Horizontal	76.5	201	
	18885	Vertical	50	201	
	19005	Inverted	212.5	203	
	19051	Vertical	225	161	Approved as T-14222
	19052	Vertical	225	161	Approved as T-14222
	19053	Vertical	225	161	Approved as T-14222
	19062	Horizontal	576	199	Approved as T-18642
	19125	Vertical	350	202	
	19126	Vertical	238	203	
	19139	Vertical	93	204	
	19269	Vertical	225	161	Approved as 19053
	19273	Vertical	300	160	Approved as T-14219
	19382	Vertical	123.5	204	
	19383	Vertical	225	161	Approved as 19052
	19453	Inverted	505	205	
	19578	Horizontal	198	205	
	19705	Vertical	212.5	206	
	19820	Horizontal	36	206	Also identified as ONAN 155-2048
	19822	Horizontal	38	207	
	19825	Horizontal	18	207	
	19826	Horizontal	27.5	208	
Nelson	19830	Vertical	345	208	Illegal above 345 cfm

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Nelson	19941	Horizontal	94	209	
	19973	Horizontal	45	209	
	19975	Horizontal	95	209	
	19976	Horizontal	124.5	209	
	19994	Vertical	94	209	
	20069	Horizontal	470	210	
	20072	Vertical	392	211	
	20147	Horizontal	78	211	
	25766	Multi-	48	212	Screen; 4-cycle, 8 hp
	30134	Vertical	297.5	212	
	35347	Multi-	81	213	Screen; 4-cycle, 16 hp For use on Nelson 16184, 17605, 17814 & 18672 mufflers
	U-49110	Vertical	75	216	Approved as T-9458
	U-49110	Horizontal	50	216	Approved as T-9458
	U-49114	Vertical	105	216	Approved as T-14123
	U-49114	Horizontal	99	216	
	U-49115	Vertical	124	216	
	U-49115	Horizontal	123	216	
	49119	Vertical	240.3	214	
	49119	Horizontal	237	214	
	U-49120	Vertical	255	216	
	U-49120	Horizontal	260	216	
	49120-F	Vertical	255	216	Outlet may vary 2" O.D. to 2¼" I.D. See Nelson U-49120
	49120-F	Horizontal	260	216	Outlet may vary 2" O.D. to 2¼" I.D. See Nelson U-49120
	49124	Vertical	302	214	
	U-49125	Horizontal	347	217	
	U-49130	Vertical	663	217	
	49135	Vertical	830	215	
Nelson	49135	Horizontal	950	215	

(Nelson Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Nelson	49140	Horizontal	920	215	
	49150	Horizontal	1275	215	
	49150	Vertical	1275	215	
	49160	Horizontal	2020	216	
Nelson	49160	Vertical	2040	216	

NELSON MUFFLER
P. O. Box 428, Stroughton, Wisconsin 53589

ONAN 155-1254		Horizontal	92	218	
ONAN 155-1258		Inverted	28	218	℄ or offset outlet tube OK
ONAN 155-1485		Inverted	69	218	
ONAN 155-1520		Inverted	41.5	218	
ONAN 155-1698		Vertical	75	218	
ONAN 155-2048		Horizontal	36	218	See Nelson 19820

ONAN DIVISION
1400 73rd North East, Minneapolis, Minnesota 55432

O&R 76		Multi-	16	219	Screen; 2-cycle

O&R ENGINES INC.
3340 Emery Street, Los Angeles, California 90023

Pacific Pumper Model 2		Special Purpose	103	220	Screen type for use on 8.5 hp or smaller 2-stroke cycle engine-driven pumps (Mark 3 and Mark 26 pumps)
Pacific Pumper D-4479		Horizontal	57	220	Primer-arrester

PACIFIC PUMPERS INC.
P. O. Box 88540, Tukwila Branch, Seattle, Washington 98188

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
PKM II	**Special Purpose**	**37.5**	**221**	**For use on 7 hp, 4-cycle engine-driven generator only**

RALPH ELECTRIC PLANTS, INC.
836 Broadway, Chula Vista, California 90210

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Powell No. F	**Horizontal**	**27.2**	**221**	

POWELL BROTHERS
3180 Carlin Avenue, Lynwood, California 90262

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Riker SA-200	**Vertical**	**208**	**222**	
SA-200	**Horizontal**	**208**	**222**	
SA-250	**Vertical**	**345**	**222**	
SA-250	**Horizontal**	**369**	**222**	
SA-300	**Vert & Hor**	**400**	**222**	
SA-350	**Vertical**	**545**	**222**	
SA-350	**Horizontal**	**587**	**222**	
SA-350-1	**Vertical**	**381**	**222**	**Modified SA-350**
SA-353	**Horizontal**	**517**	**222**	
SA-400	**Vertical**	**585**	**223**	
SA-400A	**Vertical**	**600**	**223**	
SA-400A	**Horizontal**	**582**	**223**	
SA-401	**Vertical**	**680**	**223**	
SA-401	**Horizontal**	**723**	**223**	
SA-408	**Vertical**	**900**	**223**	
SA-408	**Horizontal**	**860**	**223**	
SA-409	**Horizontal**	**809**	**223**	**Modified SA-408**
SA-500	**Vertical**	**979**	**224**	
SA-500	**Horizontal**	**989**	**224**	
Riker SA-6762	**Vertical**	**550**	**224**	**Modified SA-408 in muffler shell**

RIKER MANUFACTURING
4901 Stickney Avenue, Toledo, Ohio 43612

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Rupp 32004	**Horizontal**	**24**	**225**	

RUPP INDUSTRIES, INC.
P. O. Box 1217, Mansfield, Ohio 44903

Skyway 300	**Horizontal**	**107**	**226**	**Series 300 body length may vary from 8½ to 16½ in Series 300**
Skyway 510	**Horizontal**	**60**	**226**	
Skyway 1000	**Horizontal**	**40.1**	**226**	
Skyway 2500	**Horizontal**	**74**	**226**	

SKYWAY RECREATION PRODUCTS
4451 Caterpillar Road, Redding, California 96001

Soundmaster* 21578	**Vertical**	**296**	**227**	
*** 21578**	**Horizontal**	**273**	**227**	
*** 21579**	**Vertical**	**436**	**227**	
*** 21579**	**Horizontal**	**427**	**227**	
*** 21580**	**Vertical**	**644**	**227**	
*** 21580**	**Horizontal**	**597**	**227**	
*** 21581**	**Vertical**	**881**	**227**	
*** 21581**	**Horizontal**	**842**	**227**	
*** 21582**	**Vertical**	**1200**	**227**	
*** 21582**	**Horizontal**	**1177**	**227**	
*** 21584**	**Vertical**	**1670**	**227**	
*** 21584**	**Horizontal**	**1630**	**227**	
*** 22055**	**Vertical**	**2660**	**227**	
*** 22055**	**Horizontal**	**2480**	**227**	
*** 35807**	**Vertical**	**124**	**227**	
Soundmaster* 35807	**Horizontal**	**123**	**227**	

*Soundmaster trademark consists of an asterisk-type star in an inverted triangle ⊛ See WALKER for an identical list of arresters.

SOUNDMASTER, DeKoven Manufacturing Company
1201 Michigan Boulevard, Racine, Wisconsin 53402

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Sparester	SA-100	Horizontal	147	228	
	SA-120	Horizontal	232.5	228	
	SA-140	Horizontal	285	228	
	SA-160	Horizontal	350	228	
	SA-190	Horizontal	541	229	
	SA-240	Horizontal	669	229	
	SA-280	Horizontal	955	229	
	601	Horizontal	52.5	230	
	602	Inverted	47	230	
Sparester	801	Horizontal	96.8	230	

HOEI INDUSTRIES, LTD.
9-10, 2-Chome, Nishikamata OTA-KU, Tokyo 144 JAPAN

Stemco	262-1059	Vertical	296	231	
	262-1059	Horizontal	273	231	
	262-1060	Vertical	436	231	
	262-1060	Horizontal	427	231	
	262-1061	Vertical	644	231	
	262-1061	Horizontal	597	231	
	262-1062	Vertical	881	231	
	262-1062	Horizontal	842	231	
	262-1063	Vertical	1200	231	
	262-1063	Horizontal	1177	231	
	262-1064	Vertical	1670	231	
	262-1064	Horizontal	1630	231	
	262-2020	Horizontal	260	231	See Nelson U-49120
	262-2025	Horizontal	347	231	See Nelson U-49125
	262-2030	Vertical	633	231	See Nelson U-49130
	262-2035	Vertical	830	231	See Nelson 49135
	262-2035	Horizontal	950	231	See Nelson 49135
	262-2040	Horizontal	920	231	See Nelson 49140
	262-2050	Horizontal	1275	231	See Nelson 49150
	262-2050	Vertical	1275	231	See Nelson 49150
Stemco	595M	Inverted	675	231	See Nelson 49150

STEMCO MANUFACTURING COMPANY
Box 1989, Longview, Texas 75601

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Strader 200	**Horizontal**	**29**	**232**	**Screen; trap-type—inspect frequently**
Strader 400	**Horizontal**	**46**	**232**	**Illegal above 46 cfm**

LITTLE GIANT ENGINEERING INC.

6919 Deering Avenue, Canoga Park, California 91303

Supertrapp T-99*	**Multi-**	**31**	**232**	
Supertrapp T-100*	**Multi-**	**243**	**232**	
Supertrapp T-101*	**Multi-**	**170**	**232**	
Supertrapp T-102*	**Multi-**	**64**	**232**	
Xdusor II	**Horizontal**	**155**	**232**	**Modified X-100**
Xdusor X-100	**Horizontal**	**102**	**232**	

*UNITS QUALIFY REGARDLESS OF THE NUMBER OF DISCS USED. The assigned flow rates were obtained using 18 discs. Fewer discs will give a lower flow rate and more discs will give a higher flow rate. Nest discs so dimples interlock and tighten retainer bolt so discs are not loose. Frequent cleaning may be necessary to avoid plugging.

DISCOJET CORPORATION

920 Third Street, Davis, California 95616

Suzuki HS-1	**Horizontal**	**5.0**	**232**	
Suzuki HS-2	**Multi-**	**13**	**233**	**Screen; 4-cycle, 1.6 hp**
Suzuki HS-3	**Multi-**	**51.3**	**233**	**Screen; 4-cycle, 7.8 hp**
Suzuki HS-4	**Horizontal**	**22**	**233**	**Screen; 2-cycle, 1.8 hp**
Suzuki-Krizman K-15	**Horizontal**	**20**	**234**	
KS-250	**Horizontal**	**27**	**234**	
KS-250M	**Horizontal**	**25**	**234**	**TM 75 & TC 100K motorcycle muffler**
KS-150 (for Alt 50)	**Horizontal**	**17**	**235**	
KS-250 (for TM 75)	**Horizontal**	**20**	**234**	
KS-250 (for TS 80)	**Horizontal**	**23**	**235**	
KS-250 (for SE 1500 & SE 2500)	**Horizontal**	**26.1**	**235**	
KS-350-3	**Horizontal**	**38.8**	**236**	
KS-350-3 (for LT 185)	**Horizontal**	**29.5**	**237**	
Suzuki-Krizman KS-350-3 (for LT 250)	**Horizontal**	**29.5**	**237**	

(Suzuki Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model		*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Suzuki-Krizman	KS-351	Horizontal	50	236	
	KS-400	Horizontal	84	236	
	KS-400 (for PE 250)	Horizontal	39	236	
Suzuki-Krizman	KS-400-1	Horizontal	47	238	Modified KS-400
Suzuki-Sparester-1					
	DR-400	Horizontal	87	239	
	PE-175	Horizontal	87	239	
	PE-250	Horizontal	87	239	
	PE-400	Horizontal	87	240	
Suzuki-Sparester-1					
Suzuki-Sparester	801	Horizontal	97	240	
Suzuki-Sparester	801-X0523X	Horizontal	46	240	

(U.S.) SUZUKI MOTOR COMPANY, INC.
3251 East Imperial Highway, Brea, California 92621

Taylor	100	Multi-	26	241	Screen; 4-cycle
	200	Multi-	46	241	Screen; 4-cycle
	300	Multi-	46	241	Screen; 4-cycle
	400	Multi-	26	241	Screen; 4-cycle, 4 hp
	400A	Multi-	26	242	Screen; 4-cycle, 4 hp
	750	Multi-	30	242	Screen; 4-cycle, 10 hp
	750A	Multi-	46	242	Screen; 4-cycle, 8 hp
	751	Multi-	61	243	Screen; 4-cycle, 10 hp
	800	Multi-	46	243	Screen; 4-cycle
	800	Multi-	64	243	Screen; 2-cycle
	900	Multi-	57	243	Screen; 4-cycle
Taylor	950	Multi-	50	244	Screen; 4-cycle, 10 hp

TAYLOR PRODUCTS DIVISION, Tecumseh Products Co.
1100 West Beardsley Avenue, Elkhart, Indiana 46514

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Teck	SS-860-2	Vertical	204	244	
	SS-860-2	Horizontal	181	244	
	SS-860-25	Vertical	208	245	
	SS-860-25	Horizontal	205	245	
	SS-860-3	Vertical	238	244	
	SS-860-3	Horizontal	245	244	
	SS-860-35	Vertical	377	245	
	SS-860-35	Horizontal	372	245	
	SS-860-4A	Vertical	386	245	
	SS-860-4A	Horizontal	383	245	
	SS-860-5	Vertical	532	245	
Teck	I-6250-C	Vertical	259	245	

TECK INDUSTRIES DIVISION, Central Ohio Products Co.
2733 Johnstown Road, Columbia, Ohio 43219

Tillery T-134		Multi-	45	246	Screen; 2-cycle
Tillery T-234		Multi-	26	246	Screen; 4-cycle

RESOURCES CONSERVATION EQUIPMENT COMPANY
3776 Catalina Street, Los Alamitos, California 90720

Toro 36-4750		Multi-	19	247	Screen; 4-cycle, 2.27 hp
Toro 81-0200		Multi-	31	247	Screen; 2-cycle, 3.5 hp

THE TORO COMPANY
8111 Lyndale Avenue, South, Minneapolis, Minnesota 55420

Torque TQ 1000		Horizontal	24	248	
Torque TQ 2000		Horizontal	33.6	248	
Torque TQ 3000		Horizontal	42.5	248	
Torque TQ 3000A		Horizontal	42.0	248	
Torque TQ 3000B		Horizontal	46.0	248	

TORQUE PRODUCTS, OCELOT ENGINEERING, INC.
895 West Mill Street, San Bernardino, California 92410

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
USDA FS-3	Vertical	530	249	Prototype
USDA FS-3	Horizontal	622	249	Prototype
USDA FS-3	Horizontal	614	243	Prototype
USDA FS-4	Horizontal	164	249	Prototype

U. S. DEPARTMENT OF AGRICULTURE—Forest Service
Equipment Development Center, 444 East Bonita Avenue, San Dimas, California 91773

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
PB-1196	Horizontal	69.3	250	Primer-arrester
PC-1216	Horizontal	55.9	250	Primer-arrester

WAJAX-PACIFIC
P. O. Box 88540, Seattle, Washington 98188

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Wacker WM80-58406	Horizontal	22.5	249	

WACKER CORPORATION
3808 West Elm Street, Milwaukee, Wisconsin 53209

Model	Application Position Qualified	Rated Flow (cfm)	Catalog Page	Remarks
Walker* 21578	Vertical	296	251	
* 21578	Horizontal	273	251	
* 21579	Vertical	436	251	
* 21579	Horizontal	427	251	
* 21580	Vertical	644	251	
* 21580	Horizontal	597	251	
* 21581	Vertical	881	251	
* 21581	Horizontal	842	251	
* 21582	Vertical	1200	251	
* 21582	Horizontal	1177	251	
* 21584	Vertical	1670	251	
Walker * 21584	Horizontal	1630	251	

(Walker Models Continued)

Model		*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Walker*	22055	Vertical	2660	251	
*	22055	Horizontal	2480	251	
*	35807	Vertical	124	251	
Walker*	35807	Horizontal	123	251	

*Walker trademark consists of an asterisk-type star in an inverted triangle . See SOUNDMASTER for an identical list of arresters.

WALKER MANUFACTURING COMPANY
1201 Michigan Boulevard, Racine, Wisconsin 53402

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Washington Iron Works No. 3	Vertical	615	252	Discontinued

WASHINGTON IRON WORKS
1500 Sixth Avenue, South, Seattle, Washington 98134

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Wintec 500	Horizontal	70.5	253	

FUN'N FAST INC.
18143 Napa Street, Northridge, California 91324

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Xducer	–	–	253	See Super-Trapp—Discojet Corp.

Model		*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Yamaha	EG 100A	Horizontal	33	255	
	EG 100B	Horizontal	26	255	
	EG 102A	Horizontal	45.5*	255	
	EG 102B	Horizontal	44.5*	255	
	EG 103A	Vertical	27.4	256	
	EG 103B	Vertical	26.7	256	
	EG 104A	Vertical	21.6	256	Illegal above 21.6 cfm
	EG 104B	Vertical	20.4	256	
	EG 105A	Inverted	18.7	257	Illegal above 18.7 cfm
Yamaha	EG 106	Horizontal	13.1	257	

(Yamaha Models Continued)

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

	Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Yamaha	EG 107	Horizontal	43.5	257	
	EG 108	Horizontal	29	258	
	EG 109	Horizontal	25	258	
	EG 110	Inverted	72	259	
	YHM 167A	Horizontal	35	259	
	YHM 200	Horizontal	49.5	259	
	YHM 200A	Horizontal	49.0	261	
	YHM 200B	Horizontal	63.6	261	
	YHM 220	Horizontal	44.5	260	
	YHM 220A	Horizontal	43.5	260	
	YHM 238	Horizontal	63.5	261	
	YHM 238A	Horizontal	63.2	262	
	YHM 238B	Horizontal	40.8	262	
Yamaha	YHM 270	Horizontal	76.8	263	
Yamaha-Krizman	KS-250	Horizontal	24.3	264	
	KS-250A	Horizontal	19.7	264	
	KS-350	Horizontal	58	264	
	KS-350A	Horizontal	53.5	264	
	KS-350B	Horizontal	31.6	265	
	KS-350C	Horizontal	23.4	265	
	KS-375	Horizontal	79	266	Modified KS-400
	KS-375A	Horizontal	75	266	
	KS-375B	Horizontal	55.1	266	
	KS-375C	Horizontal	69.7	267	
	KS-375D	Horizontal	71.2	267	
	KS-375E	Horizontal	63.2	269	
	YS-80	Horizontal	24	267	Discontinued
	YS-125	Horizontal	42.0	267	Discontinued
	YS-250	Horizontal	19.5	268	Discontinued
Yamaha-Krizman	YSU-80	Horizontal	23.5	268	Discontinued
Yamaha-Skyway	520	Horizontal	89	268	Series 300—illegal above 89 cfm

*Not qualified for use above rated flow.

YAMAHA INTERNATIONAL CORPORATION
P. O. Box 6600, Buena Park, California 90620

SPARK ARRESTER GUIDE

QUALIFIED AND RATED LIST

Model	*Application Position Qualified*	*Rated Flow (cfm)*	*Catalog Page*	*Remarks*
Yuba 8000	Vertical	740	270	

FORD MOTOR COMPANY–Tractor Operations
2500 East Maple Road, Birmingham, Michigan 48008

(Manufacturing for Ford Motor by Yuba Manufacturing, Ltd., Sydney, Australia)

★ IMPORTANT ★

TURBO CHARGERS QUALIFY AS EFFICIENT SPARK ARRESTERS WHEN ALL GASES PASS THROUGH A TURBINE WHEEL

(See page 494)

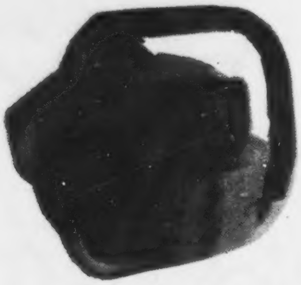
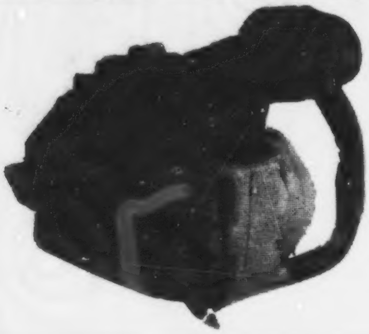
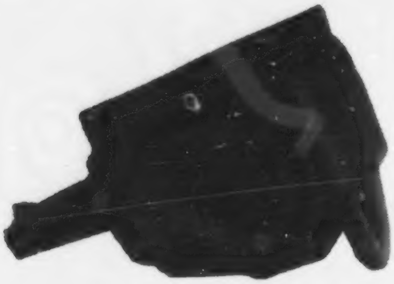
SECTION II–MULTIPOSITION SMALL SPARK ARRESTING EXHAUST SYSTEMS

MULTIPOSITION SMALL SPARK ARRESTING EXHAUST SYSTEMS are tested against Society of Automotive Engineers recommended practice SAE J335b, "Multiposition Small Engine Exhaust System Fire Ignition Suppression."

A MULTIPOSITION APPLICATION is defined as one in which an engine-powered tool is hand-held and can be operated in various positions. A chain saw would be a good example of a multiposition application because it is hand-held and can be operated in any position including inverted.

SCREEN-TYPE SPARK ARRESTERS as defined by USDA Forest Service Standard 5100-1a do not qualify for multiposition applications as described above unless they also meet the requirements of SAE J335b. Of particular importance is that they meet maximum allowable exhaust skin (550° F) and exhaust gas (475° F) temperatures.

IDENTIFICATION KEY
CHAIN SAW EXHAUST SYSTEMS

1		FRONT MOUNTED SCREEN TYPE
2		SIDE MOUNTED SCREEN TYPE
3		BOTTOM MOUNTED SCREEN TYPE

CATALOG SECTION

* * *

When the general configuration of an unknown arrester has been established by the IDENTIFICATION KEY, this section will be helpful in making the final determination of make and model.

Chain saw exhaust systems are grouped alphabetically by model name and not by manufacturer. Each unit is illustrated by a series of photographs.

Please note that in some instances certain pieces of hardware (such as a full wrap around bar or special bumper spikes) must be used in conjunction with the chain saw exhaust system. When these pieces of hardware are required it is indicated in the catalog section.

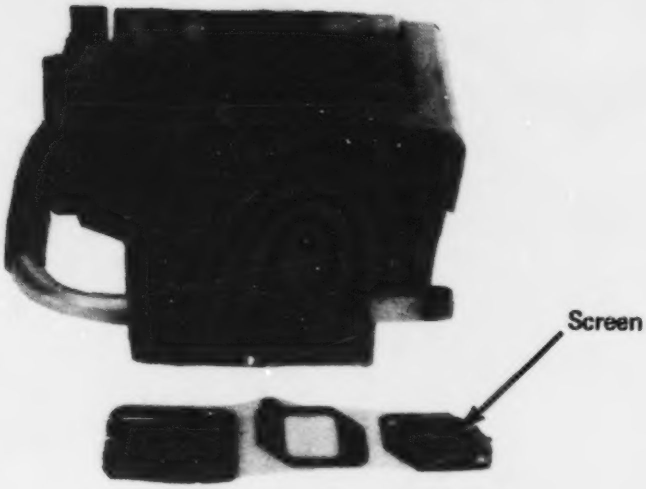
Once the identity of the arrester has been established, refer to the Qualified Chain Saw Exhaust System List, p. 443.

NOTE: All arrester screens will have maximum openings of .023 inches.

ECHO–KIORITZ CORPORATION OF AMERICA
3150 MacArthur Boulevard
Northbrook, Illinois 60062

½ wrap around bar

Bumper spikes optional

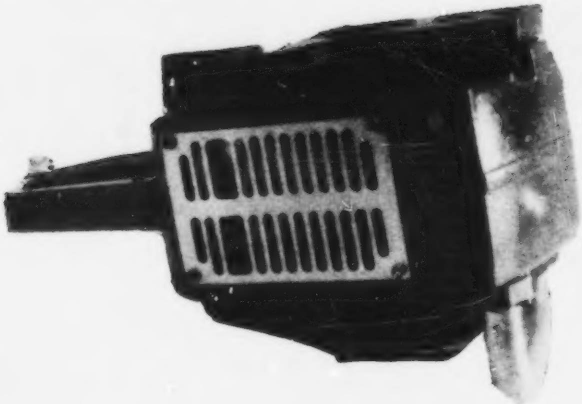


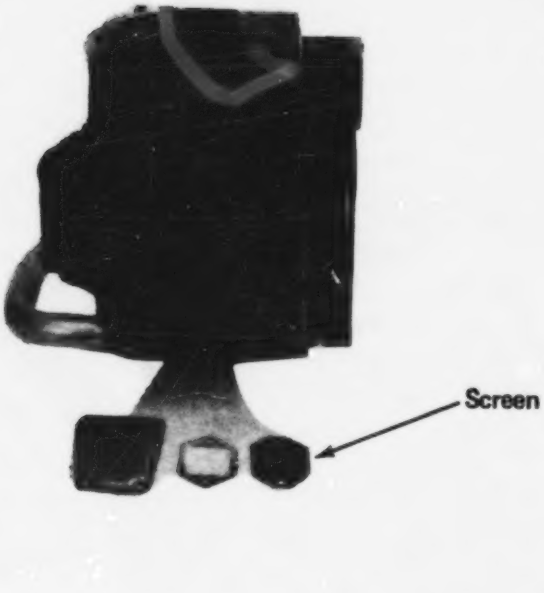
ECHO CS-302

ECHO (Continued)

½ wrap around bar

Bumper spikes optional





ECHO CS-315

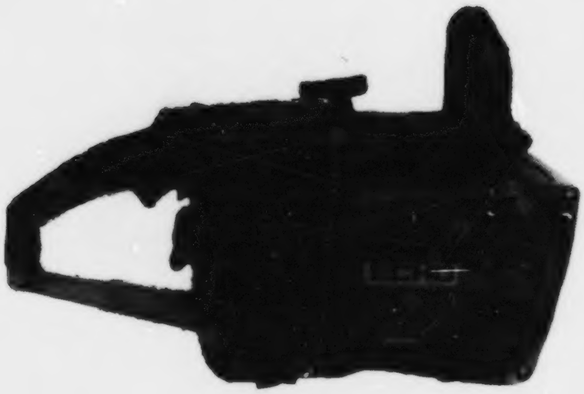
ECHO (Continued)

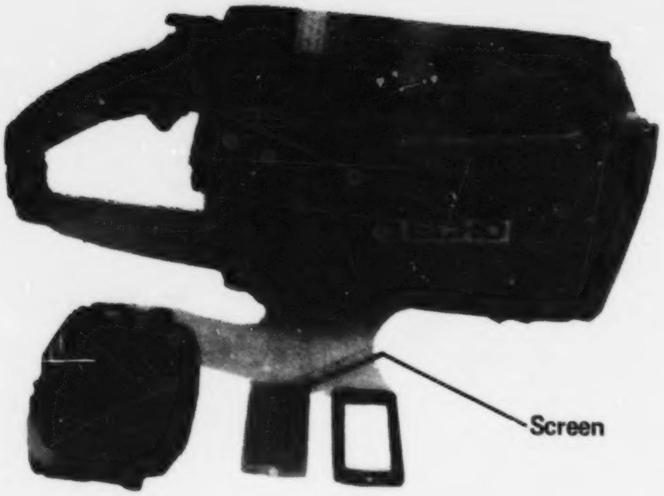
½ wrap around bar

Bumper spikes optional

ECHO 10130

ECHO (Continued)

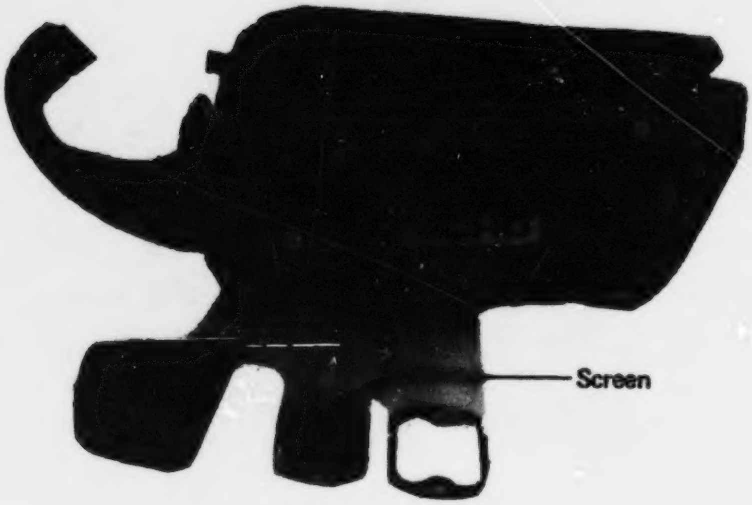

½ wrap around bar
Bumper spikes optional



ECHO 10230

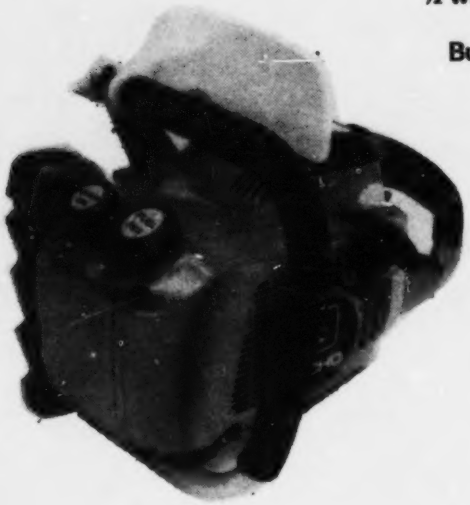
ECHO (Continued)

½ wrap around bar
Bumper spikes optional



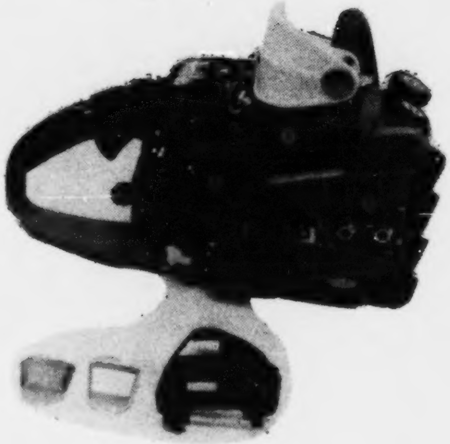
ECHO 10530

ECHO-KIORITZ CORP. OF AMERICA
3150 MacArthur Boulevard
Northbrook, Illinois 60062



½ wrap around bar

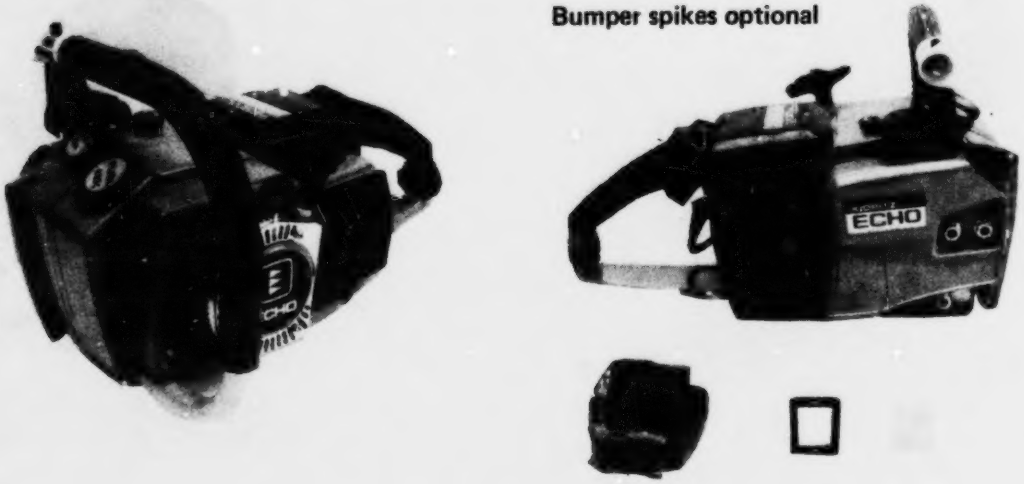
Bumper spikes
optional



12330

ECHO (Continued)

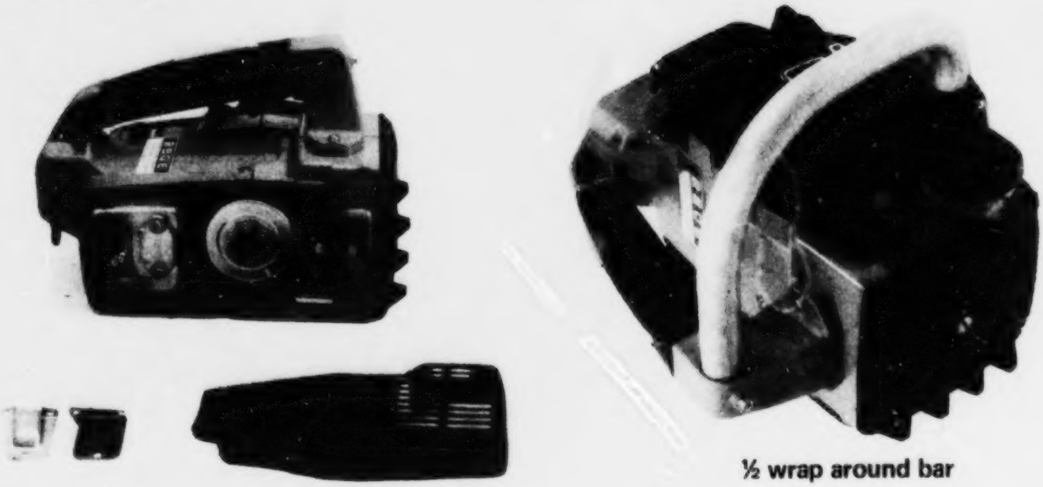
½ wrap around bar



Bumper spikes optional

10230

Bumper spikes optional



½ wrap around bar

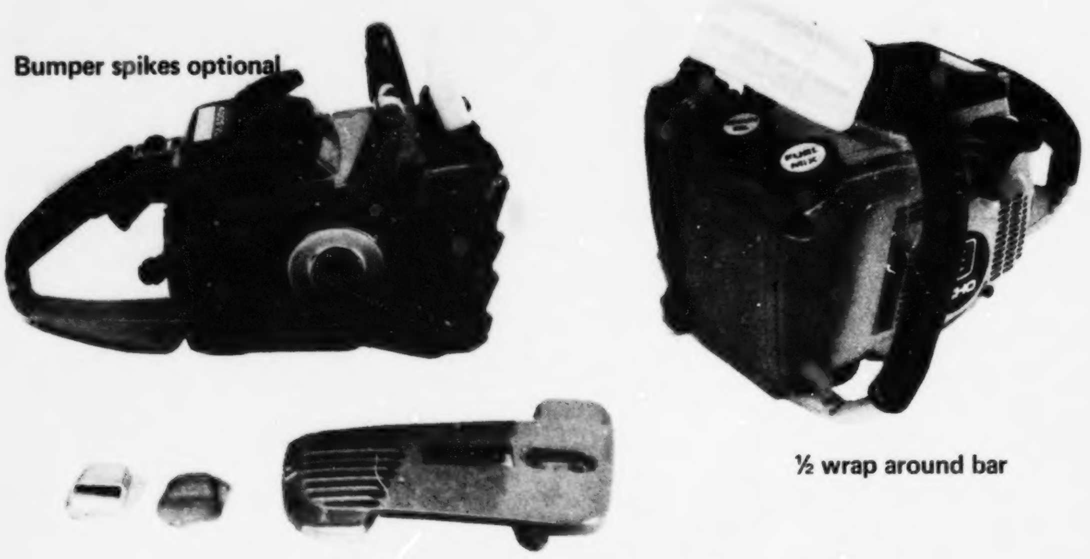
13930

ECHO (Continued)

Bumper spikes optional

½ wrap around bar

14330

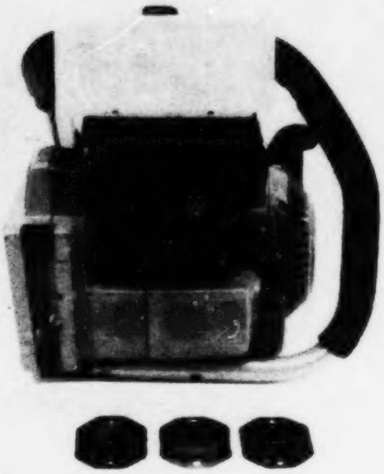


Bumper spikes optional

½ wrap around bar

14530

ECHO (Continued)

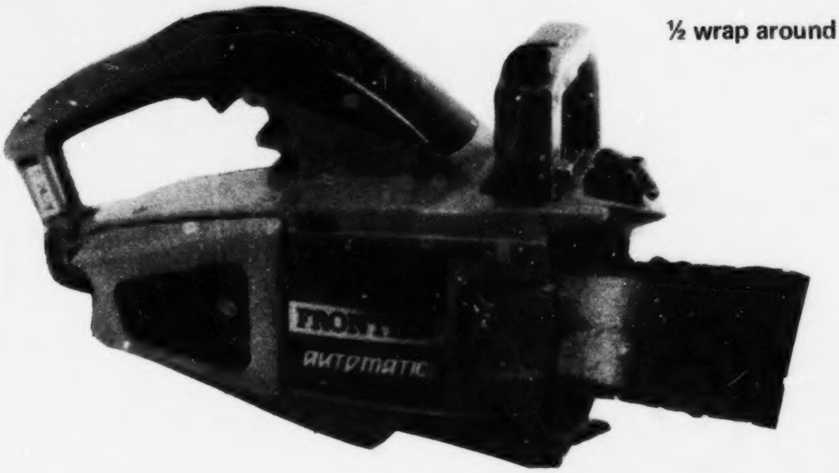


Bumper spikes optional

½ wrap around bar

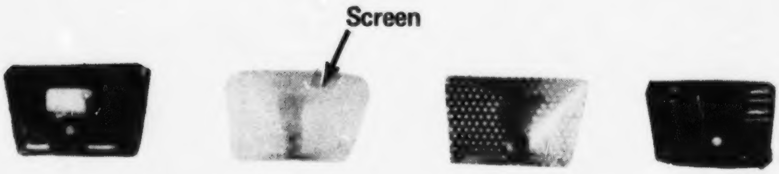
14730

FRONTIER–TRAIL MANUFACTURING LIMITED
P. O. Box 491
Trail B.C., CANADA V1R 4L7



½ wrap around bar

Bumper spikes optional



TRAIL MANUFACTURING LTD. PART NO. 100562

HOMELITE–HOMELITE TEXTRON

P. O. Box 7047
14401 Carowinds Blvd.
Charlotte, North Carolina 28217

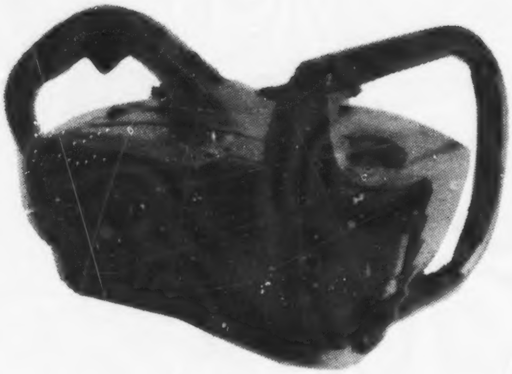
½ wrap around bar

Bumper spikes optional

NOTE: Muffler shield will be stamped with Part No. 94071

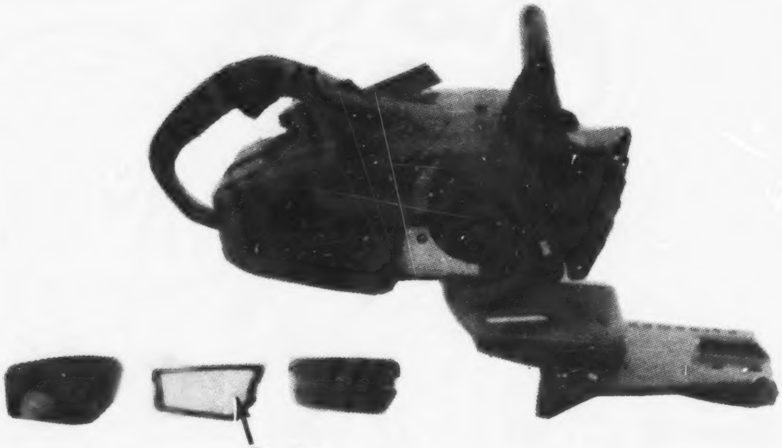
HOMELITE MOD A-94068

HOMELITE (Continued)



½ wrap around bar

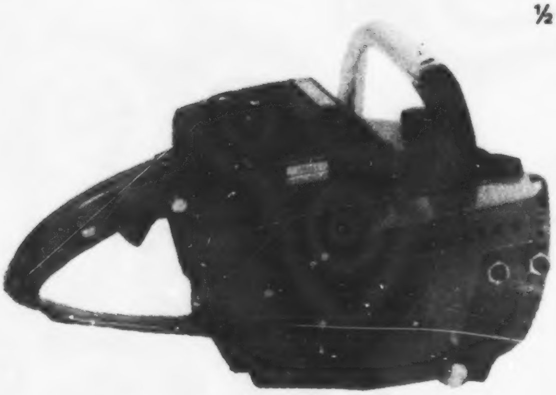
Bumper spikes optional



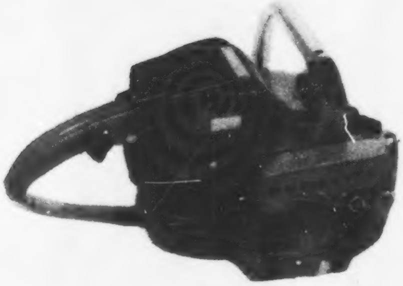
Screen

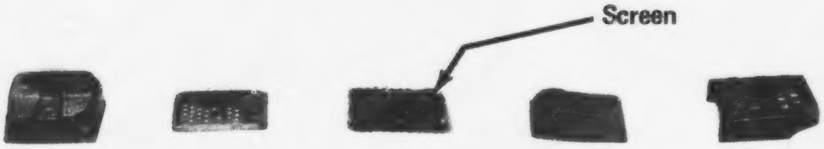
HOMELITE MOD A-94068B

HOMELITE (Continued)



½ wrap around bar
Bumper spikes optional

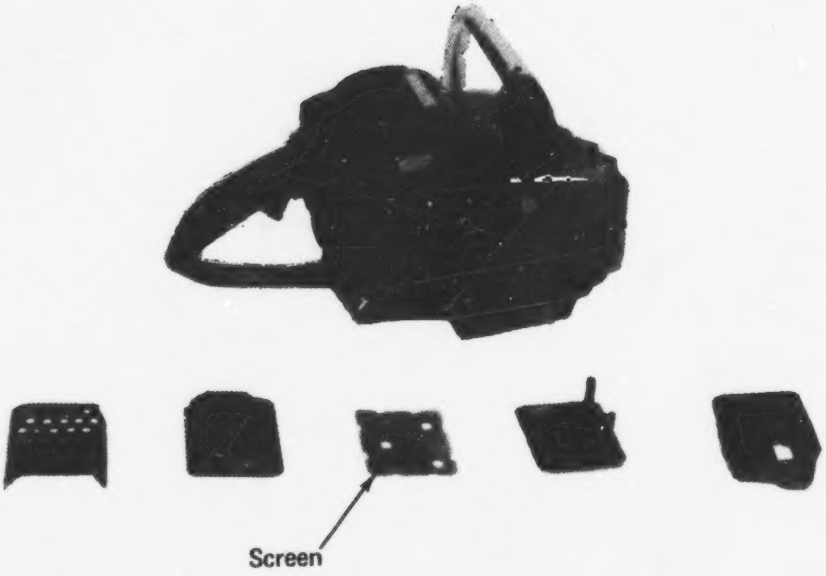




HOMELITE MOD A 94212
(Installed on Super XL-AO)

HOMELITE (Continued)

½ wrap around bar
Bumper spikes optional

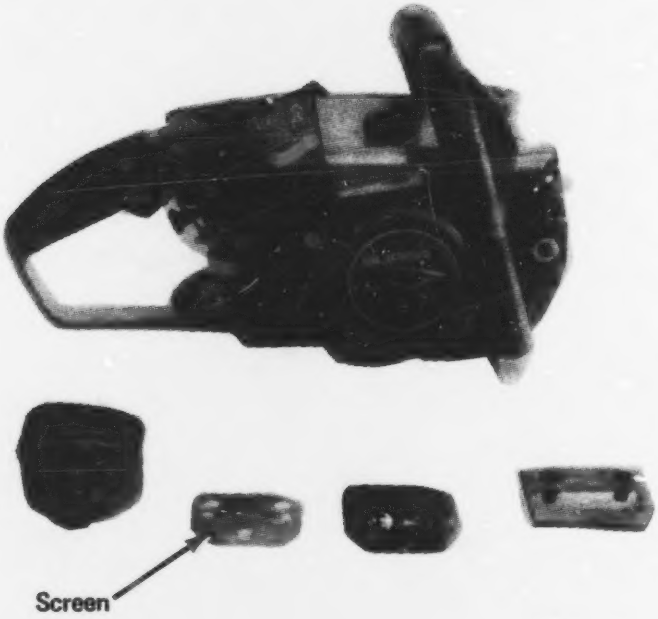


HOMELITE MOD A 94212A
(Installed on Super XL-AO)

HOMELITE (Continued)

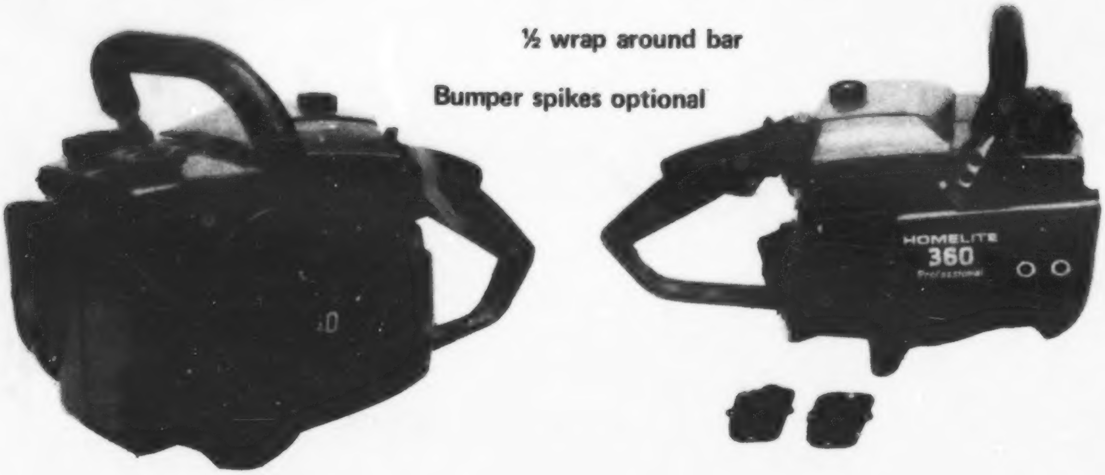
Full wrap around
bar required

Bumper spikes optional



HOMELITE MOD A-94515

HOMELITE (Continued)

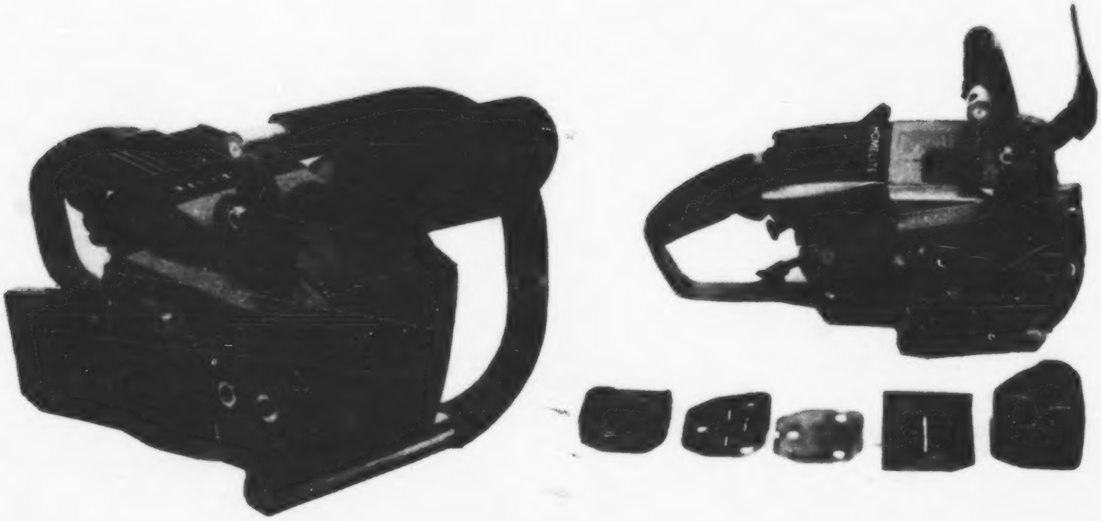


½ wrap around bar

Bumper spikes optional

HOMELITE
360
Professional

HOMELITE A94780



HOMELITE A95305B

HOMELITE (Continued)

½ wrap around bar

Bumper spikes optional

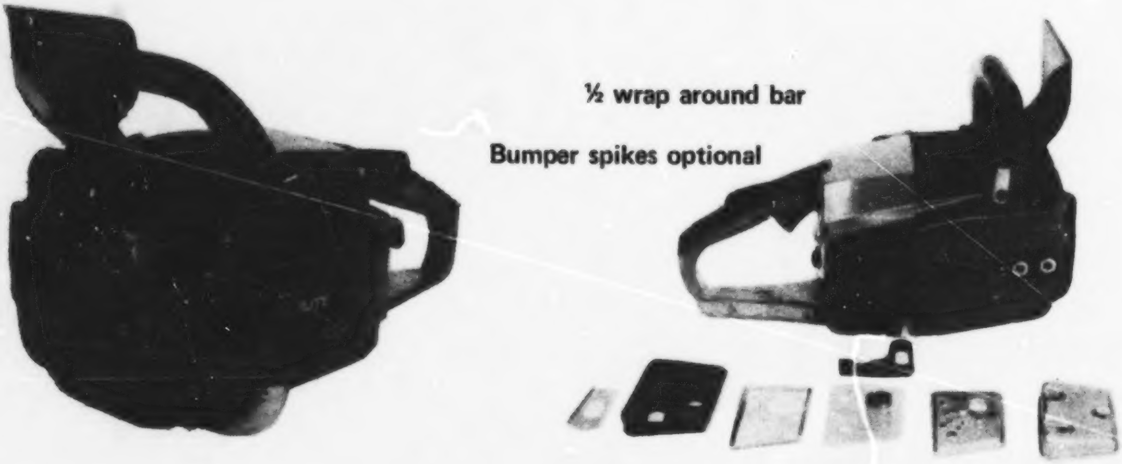
HOMELITE A95414

½ wrap around bar

Bumper spikes optional

HOMELITE A96069

HOMELITE (Continued)

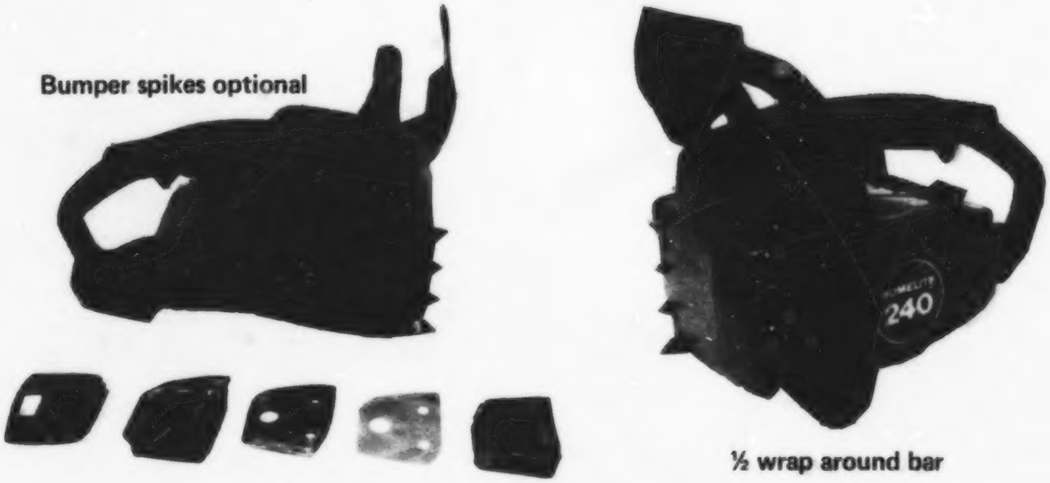

½ wrap around bar
Bumper spikes optional

HOMELITE A96456

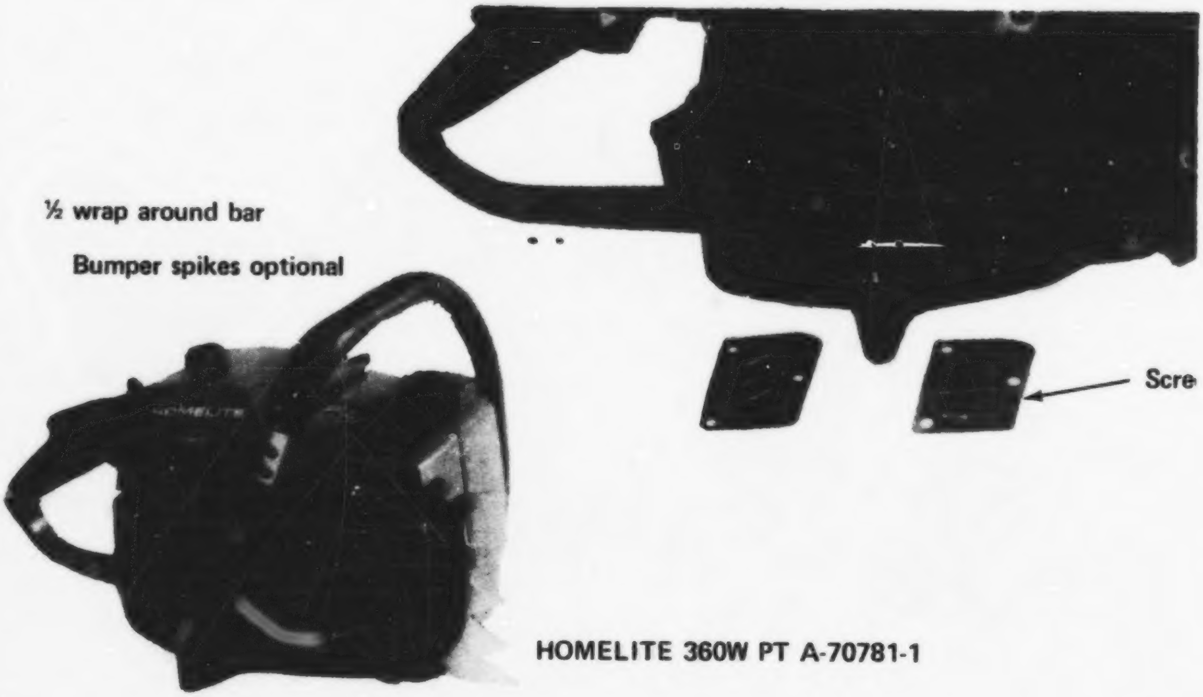
½ wrap around bar
Bumper spikes optional

HOMELITE A96489

HOMELITE (Continued)

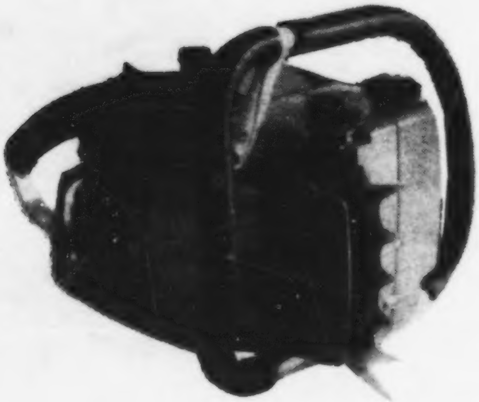

Bumper spikes optional
HOMELITE
240
½ wrap around bar

A96931


½ wrap around bar
Bumper spikes optional
HOMELITE
Scre

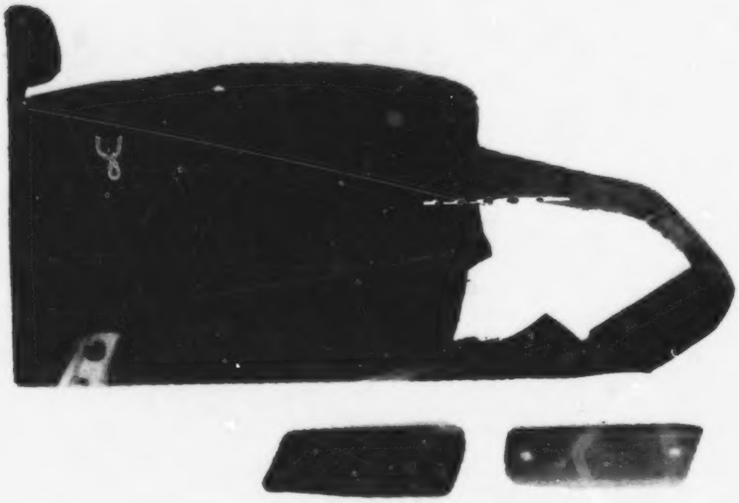
HOMELITE 360W PT A-70781-1

HOMELITE (Continued)



Full wrap around bar required

Bumper spikes optional



HOMELITE 450W UT 10441

HOMELITE (Continued)

Full wrap around bar required

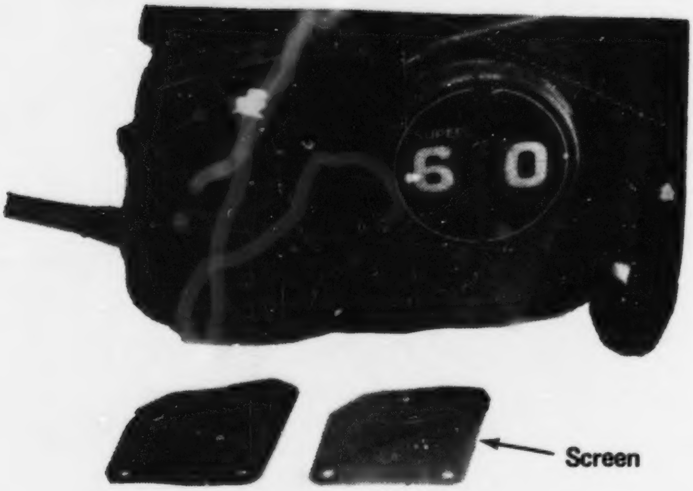
Bumper spikes optional

HOMELITE 550W UT 10498

HOMELITE (Continued)

Full wrap around bar required

Bumper spikes optional

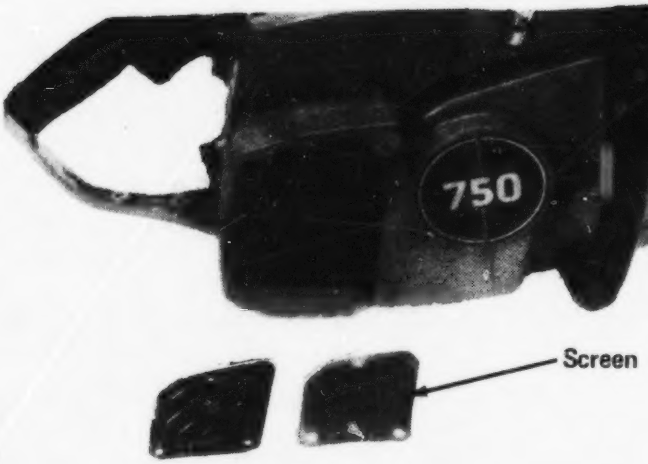


HOMELITE S650 UT 10461

HOMELITE (Continued)

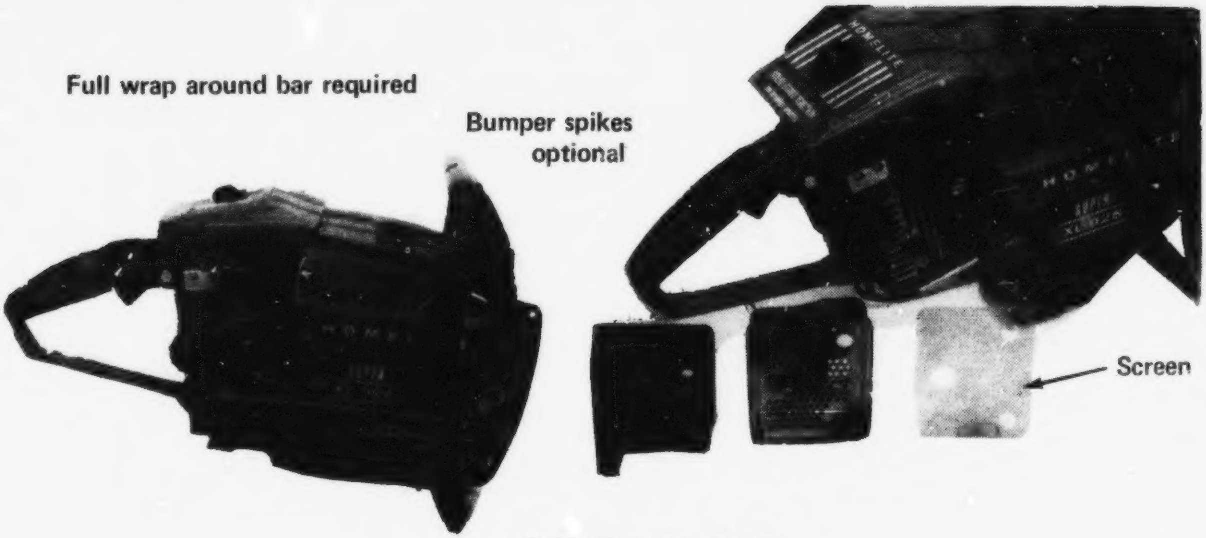
Full wrap around required

Bumper spikes optional



HOMELITE 750

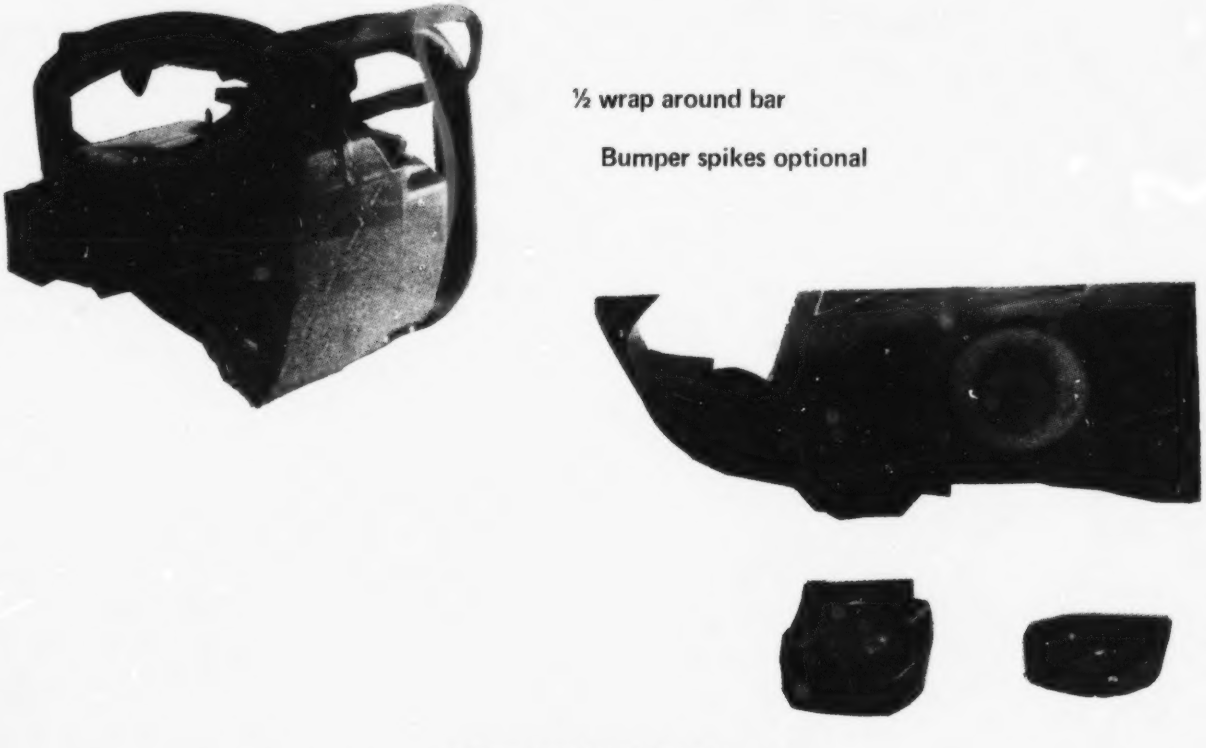
HOMELITE (Continued)



Full wrap around bar required

Bumper spikes optional

HOMELITE SXL 925W



½ wrap around bar

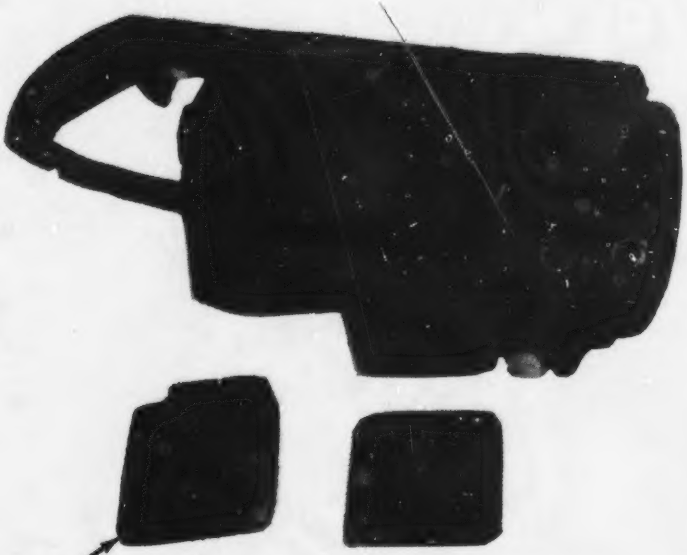
Bumper spikes optional

HOMELITE VI SUPER 2

HOMELITE (Continued)

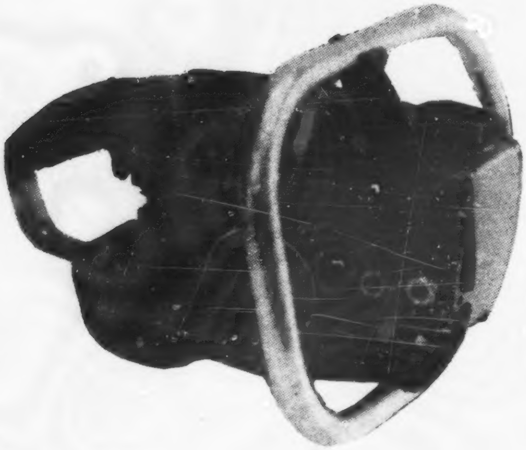
½ wrap around bar

Bumper spikes optional



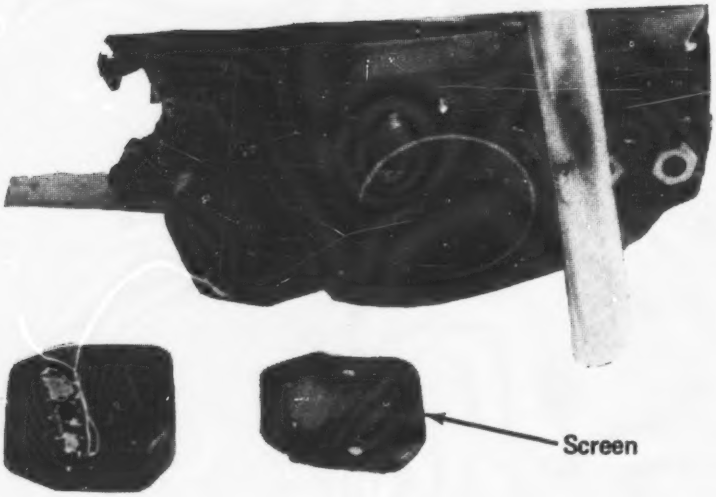
HOMELITE SUPER XL-AO

HOMELITE (Continued)



Full wrap around bar required

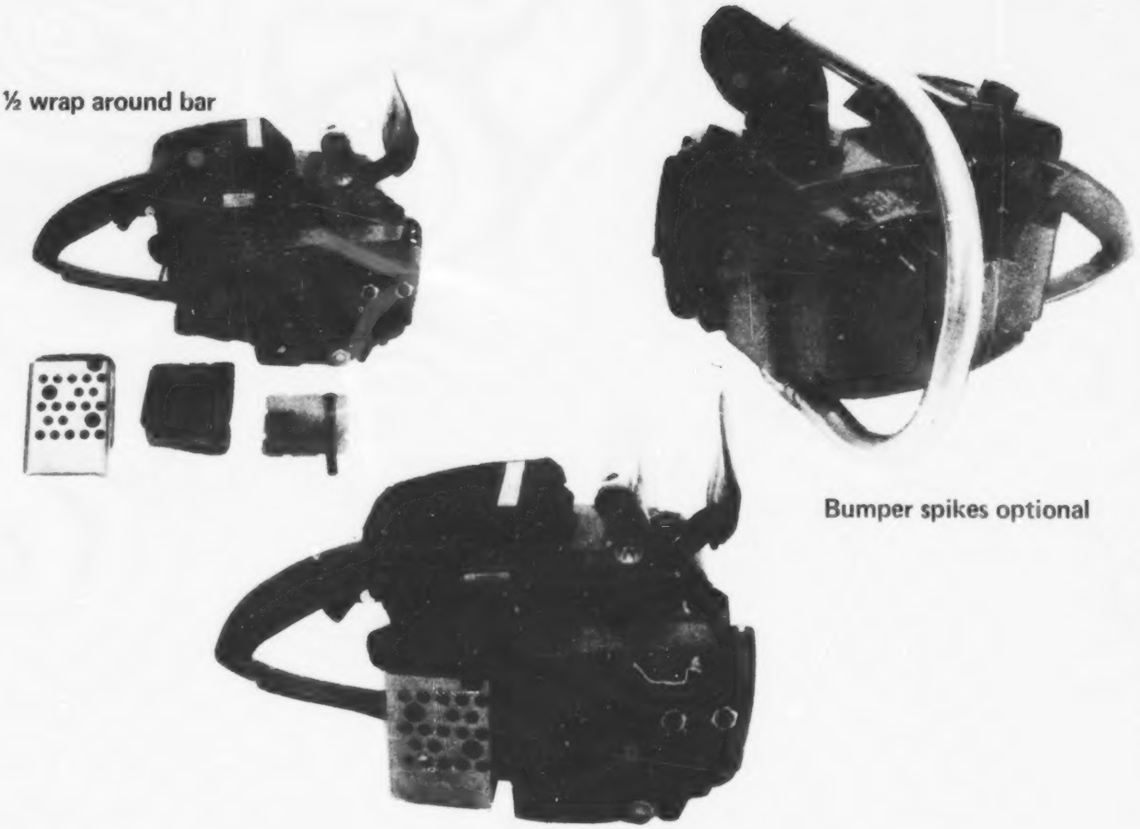
Bumper spikes optional



Screen

HOMELITE SUPER EZ-W

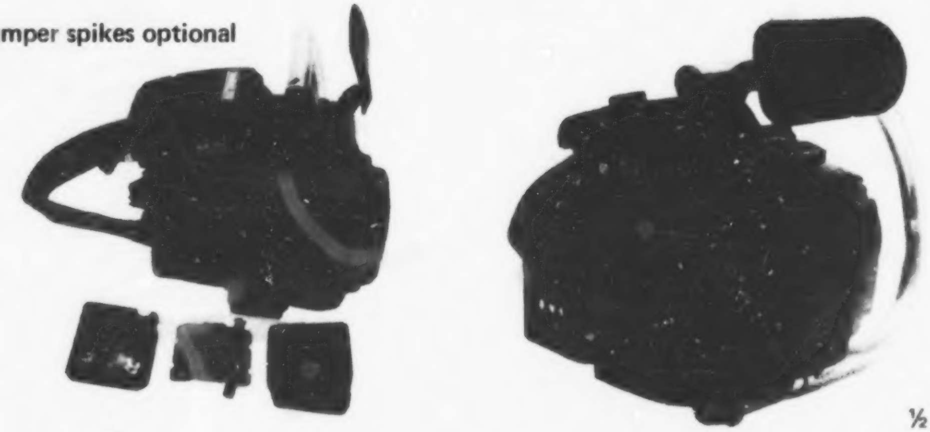
HOMELITE (Continued)



½ wrap around bar

Bumper spikes optional

RUDY 6

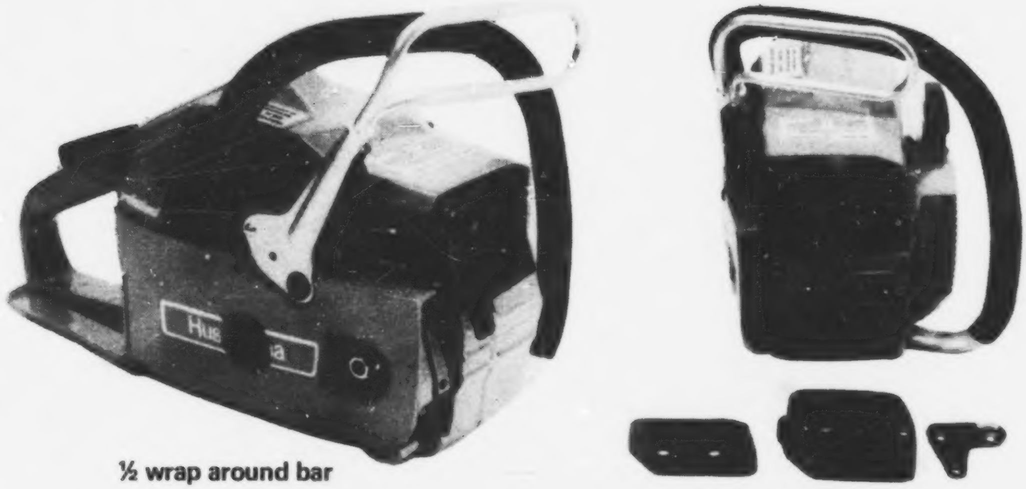


Bumper spikes optional

½ wrap around bar

RUDY 7

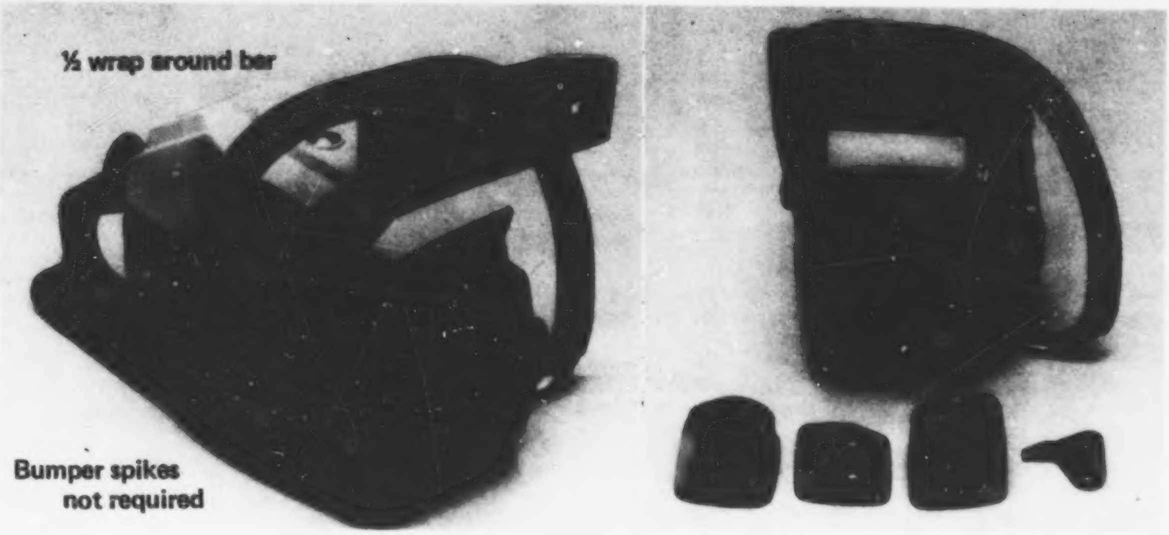
HUSQVARNA–HUSQVARNA, INC.
224 Thorndale Avenue
Bensenville, IL 60106



½ wrap around bar

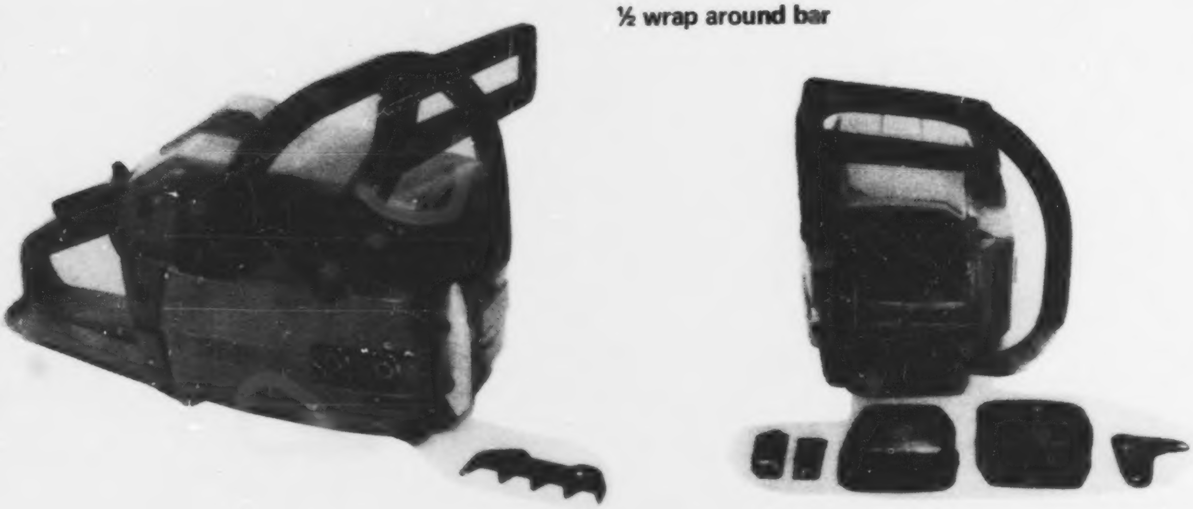
Bumper spikes optional

HUSQVARNA 3


½ wrap around bar
Bumper spikes not required

HUSQVARNA 4

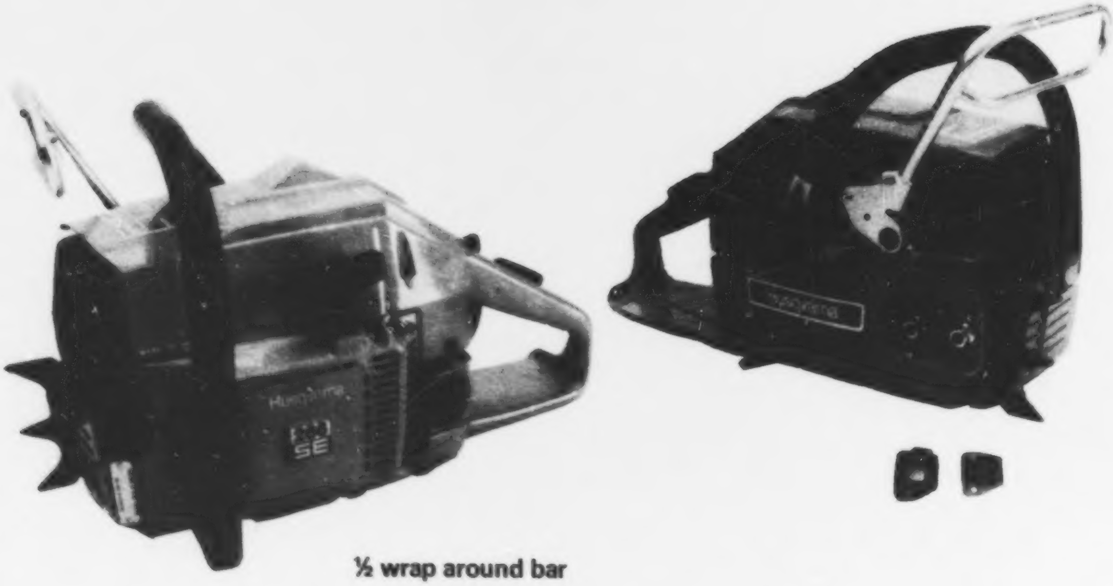
HUSQVARNA (Continued)



Bumper spikes or bar required

½ wrap around bar

HUSQVARNA 5



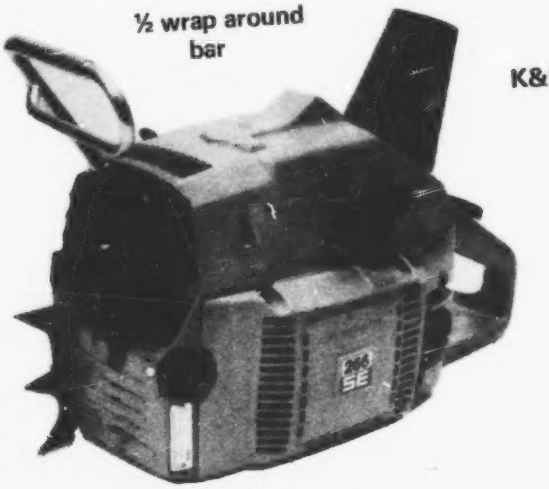
½ wrap around bar

Bumper spikes required

HUSQVARNA 6

HUSQVARNA (Continued)

½ wrap around bar

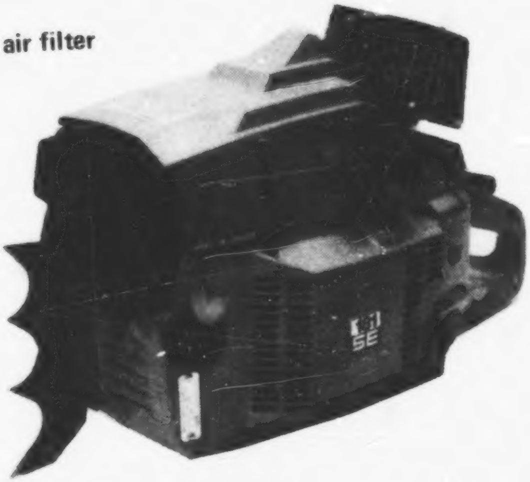


K&N air filter

Bumper spikes or bar required

HUSQVARNA 6

K&N air filter

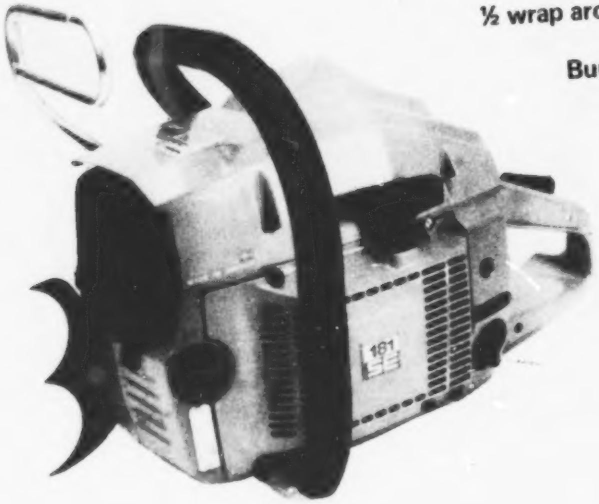


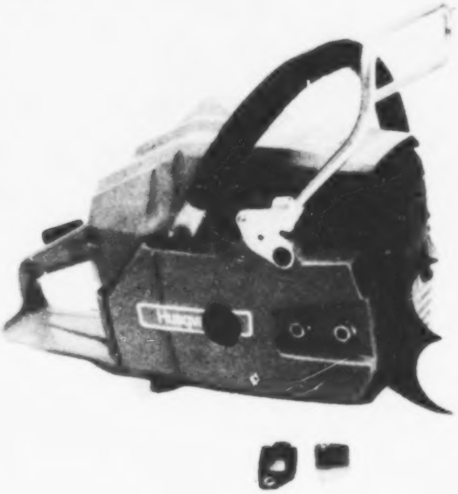
½ wrap around bar
Bumper spikes required

HUSQVARNA 8

½ wrap around bar

Bumper spikes required

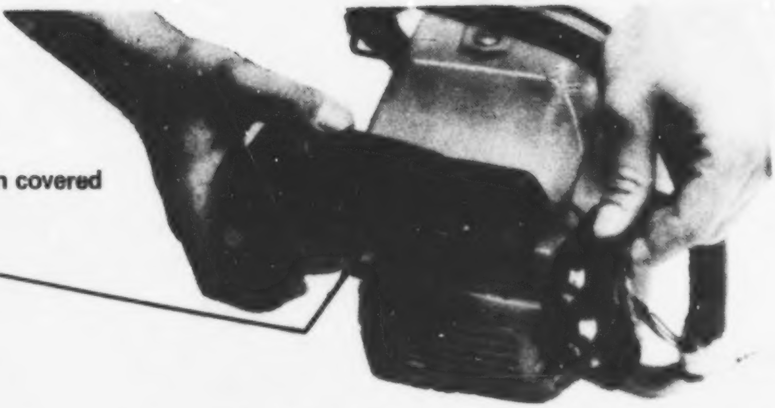




HUSQVARNA (Continued)

½ wrap around bar

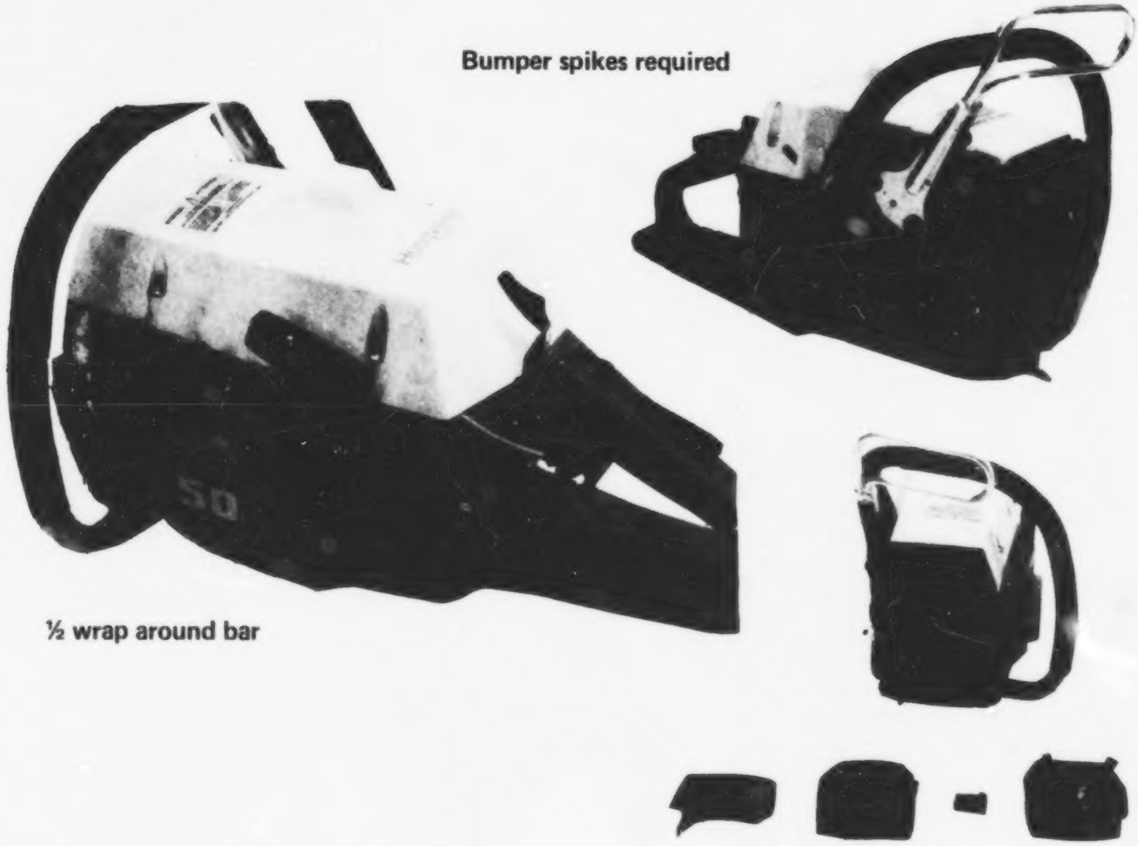
Bumper spikes optional



Holed plate is screen covered

HUSQVARNA 40

HUSQVARNA (Continued)



Bumper spikes required

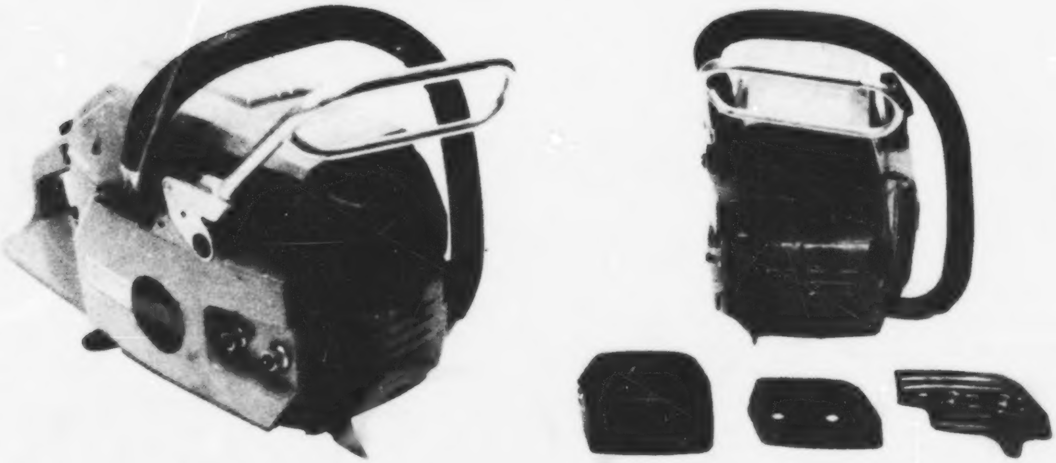
½ wrap around bar

50 RANCHER

HUSQVARNA (Continued)

½ wrap around bar

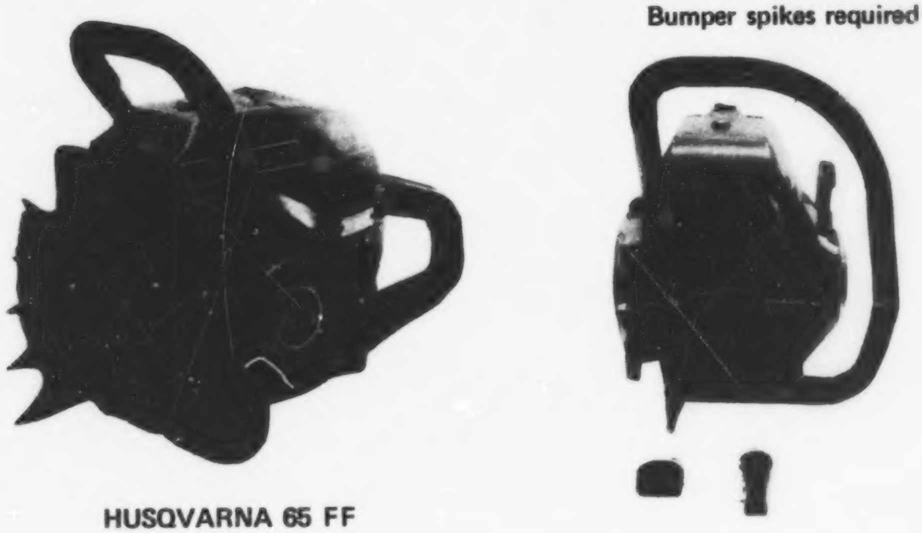
Bumper spikes required



HUSQVARNA 62

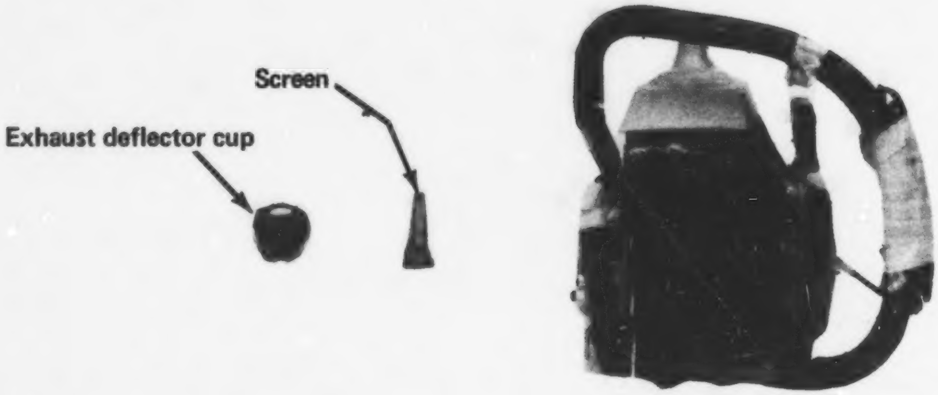
½ wrap around bar

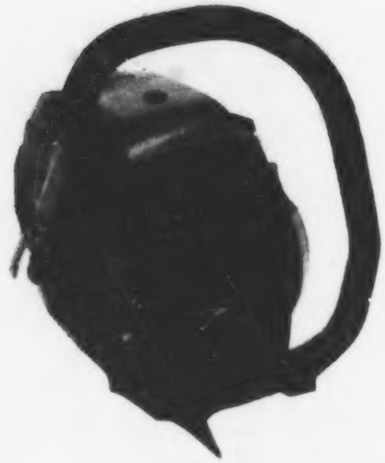
Bumper spikes required



HUSQVARNA 65 FF

HUSQVARNA (Continued)


Screen
Exhaust deflector cup


½ wrap around bar
Bumper spikes required

HUSQVARNA MOD 65/77
(Installed on Husqvarna MOD L65)

HUSQVARNA (Continued)

½ wrap around bar

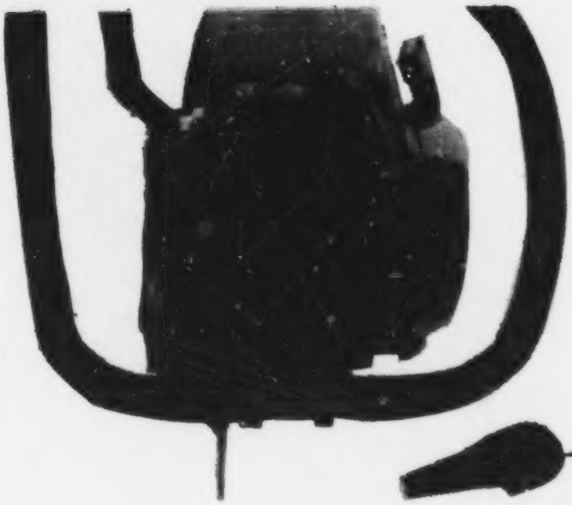
Bumper spikes required

HUSQVARNA 80

HUSQVARNA (Continued)

Full wrap around bar required

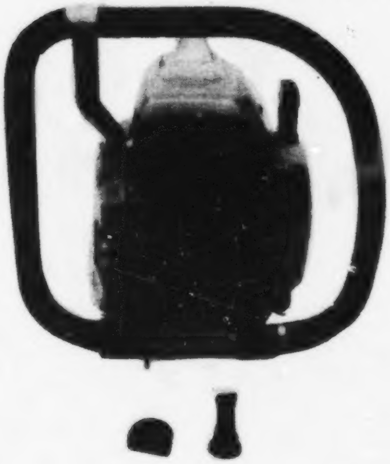
Large bumper spikes required



HUSQVARNA 85/100

HUSQVARNA (Continued)

HUSQVARNA 480 FF



Full wrap around bar

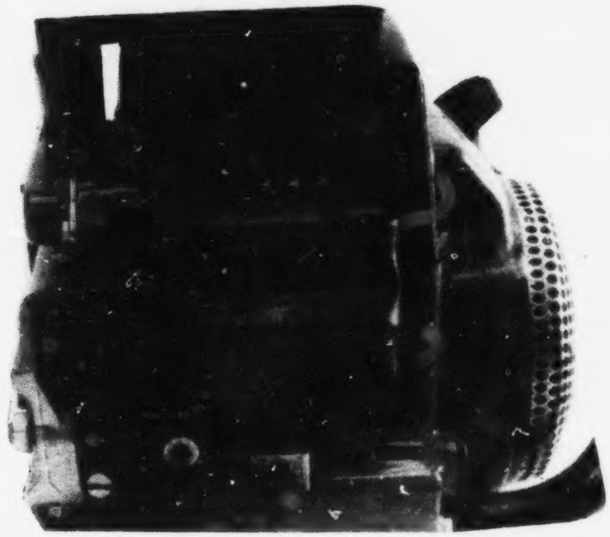
Bumper spikes required

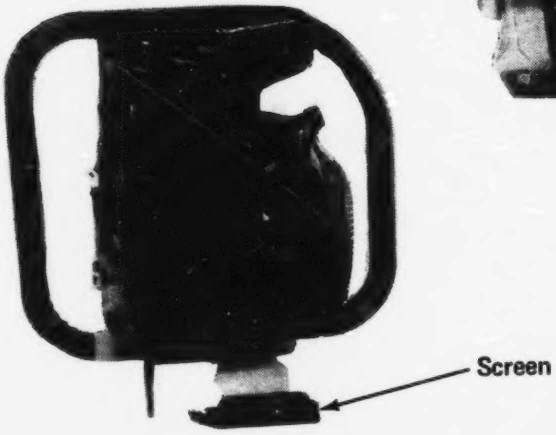
JONSEREDS–SCOTSCO, INC.
9180 Southeast 74th Avenue
Portland, Oregon 97206

Full wrap around bar required

Large bumper spikes required

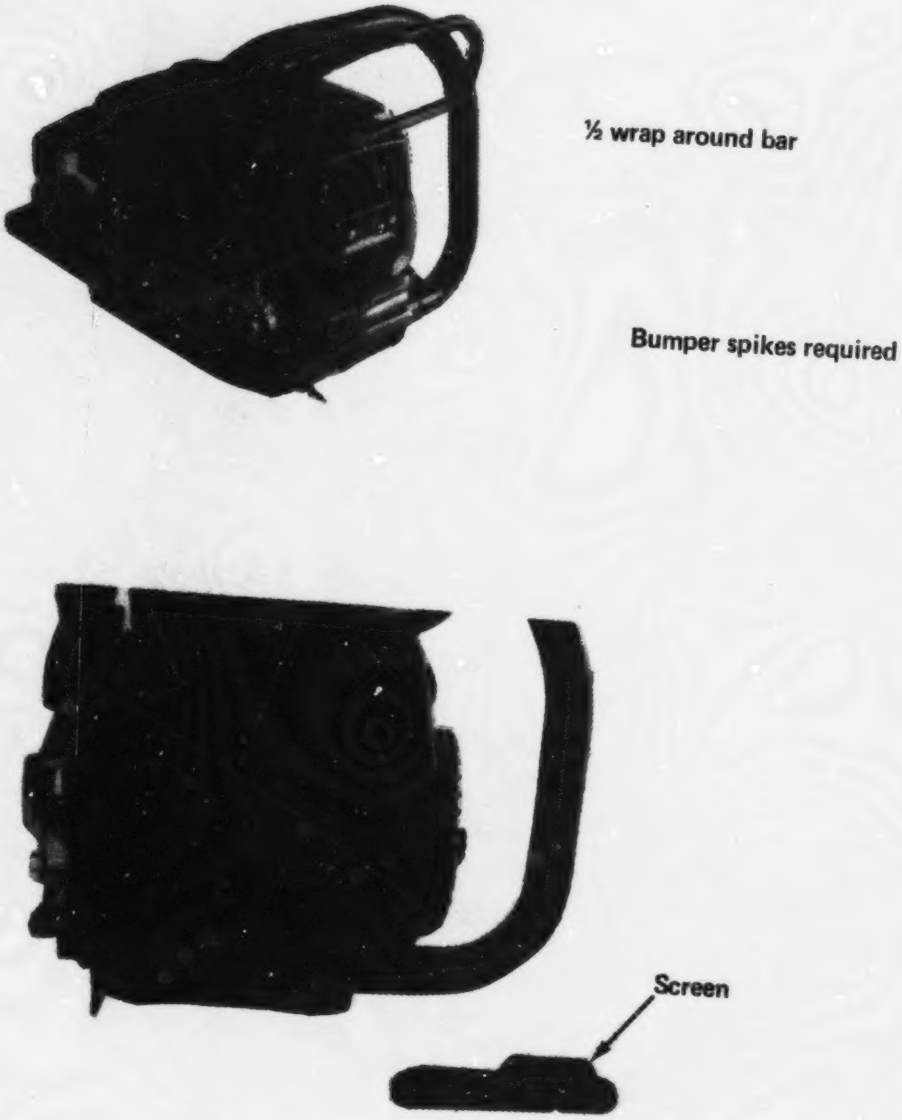
Shield removed showing louver





JONSEREDS 80/90

JONSEREDS (Continued)


½ wrap around bar
Bumper spikes required
Screen

JONSEREDS J45-49-52

JONSEREDS (Continued)

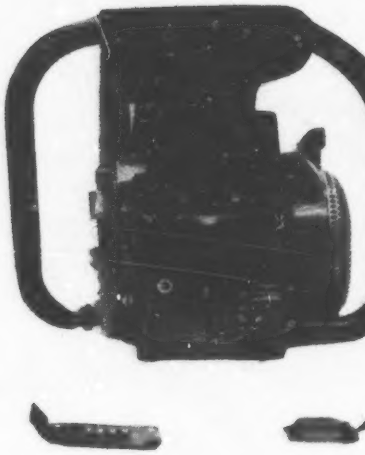
½ wrap around bar

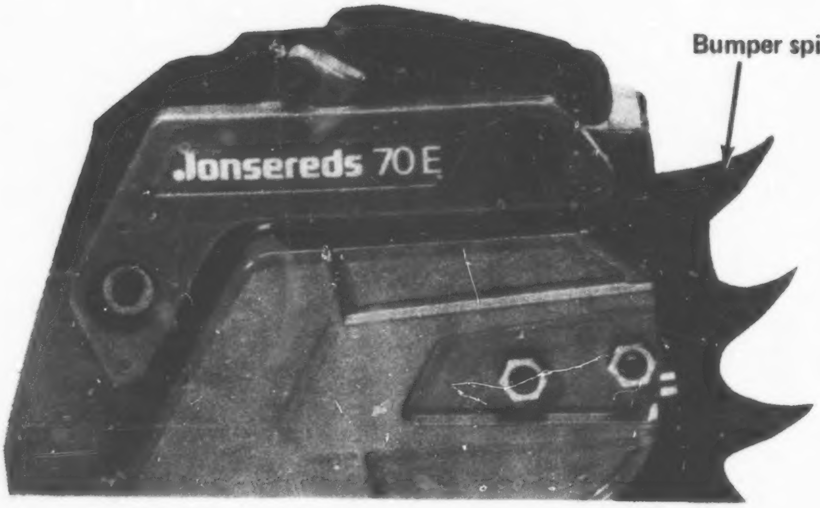
Jonsereds
630

Bumper bar required

JONSEREDS 50-15-953

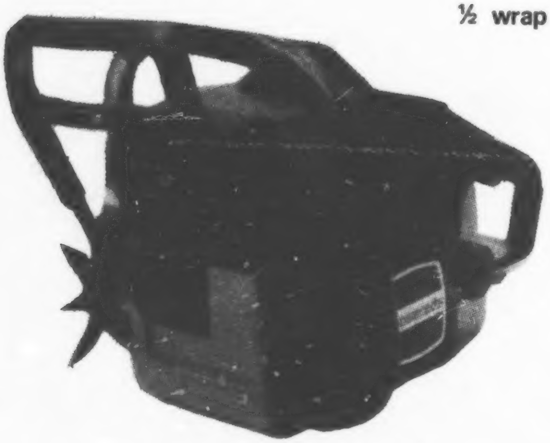
JONSEREDS (Continued)

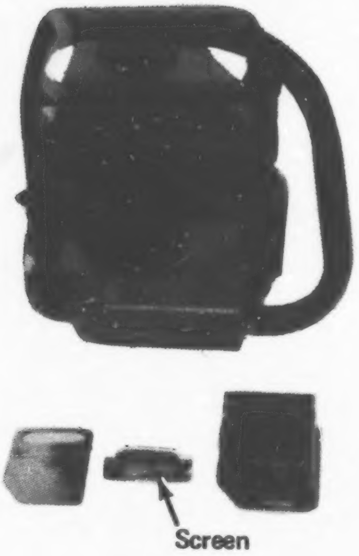

Full wrap around bar
Screen


.Jonsereds 70E
Bumper spikes required

JONSEREDS M90

JONSEREDS (Continued)


½ wrap around bar
Bumper spikes required

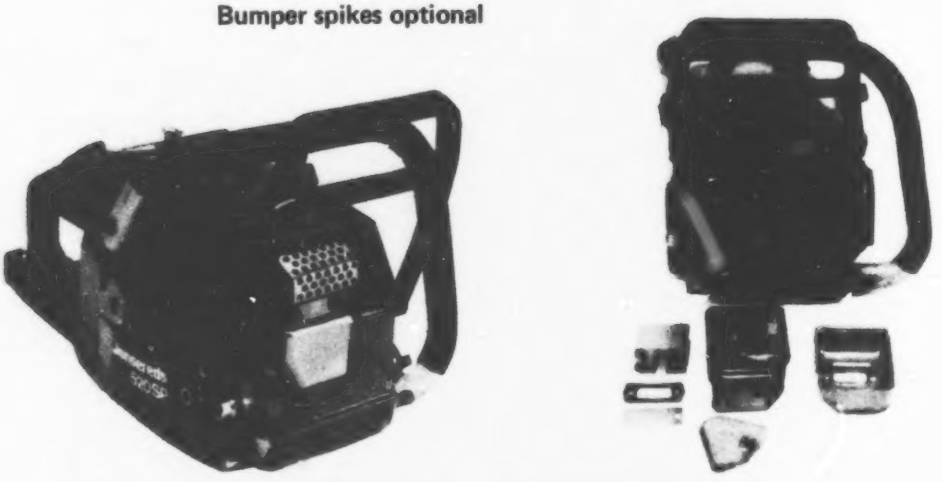


JONSEREDS MODEL 510 SP

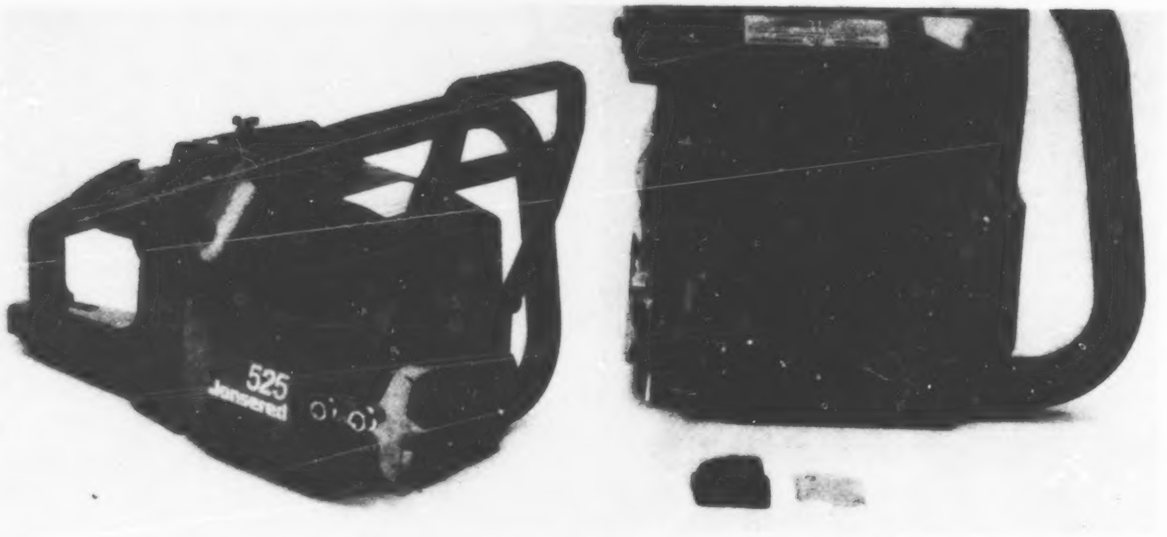
JONSEREDS (Continued)

½ wrap around bar

Bumper spikes optional


Jonsereds
520SP
3/8

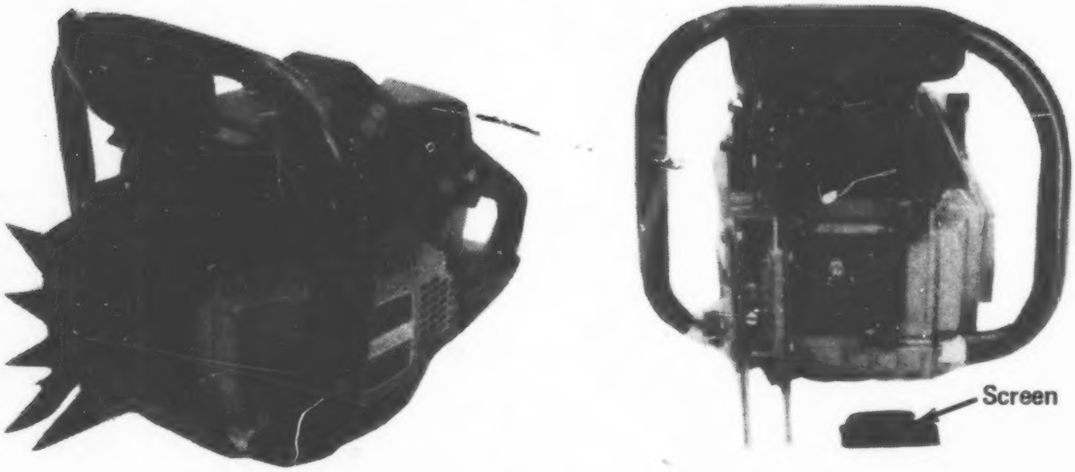
JONSEREDS 520P


525
Jonsered

½ wrap around bar — Bumper spikes required

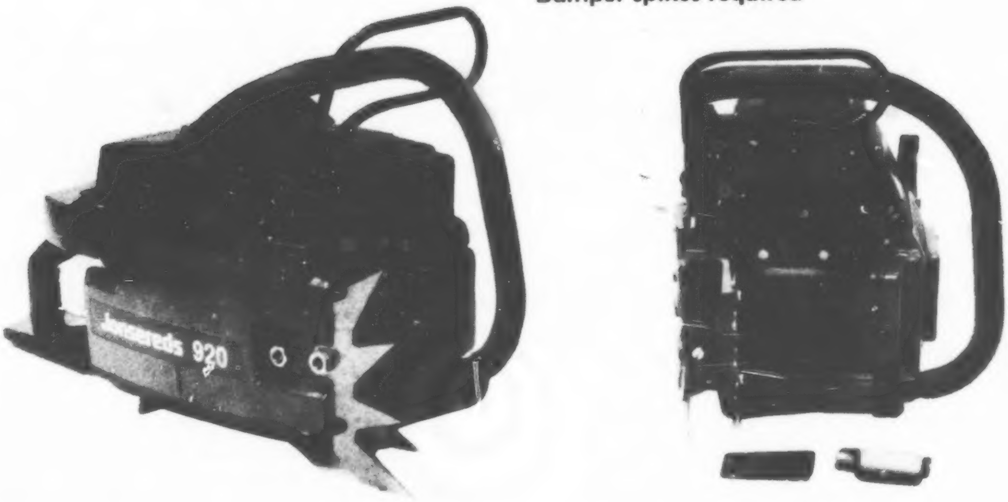
JONSEREDS 525

JONSEREDS (Continued)



Bumper spikes required

JONSEREDS 910E


Jonsereds 920

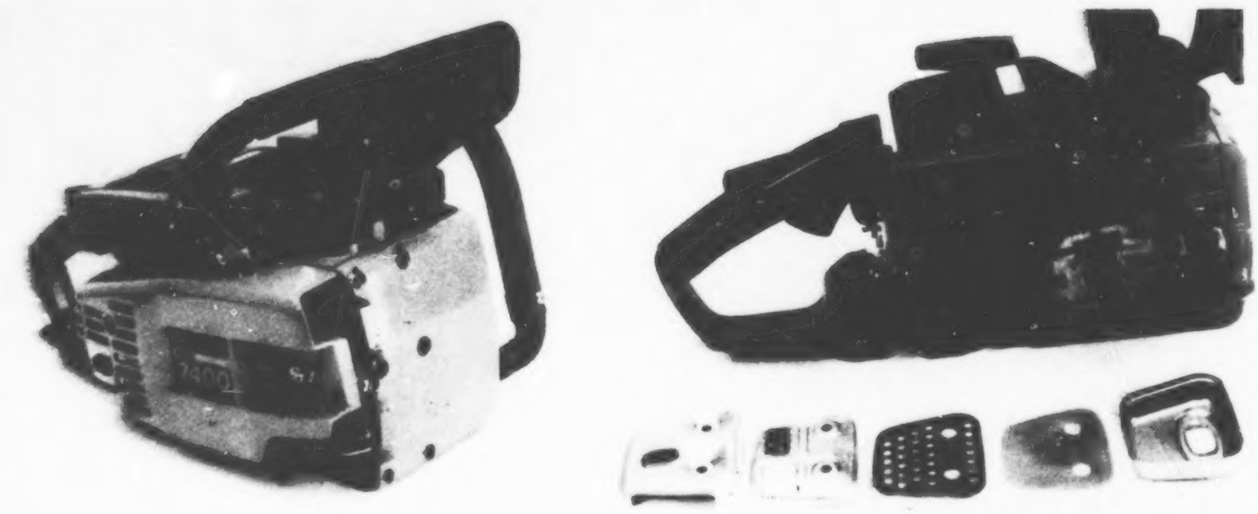
½ wrap around bar

Bumper spikes required

JONSEREDS 920

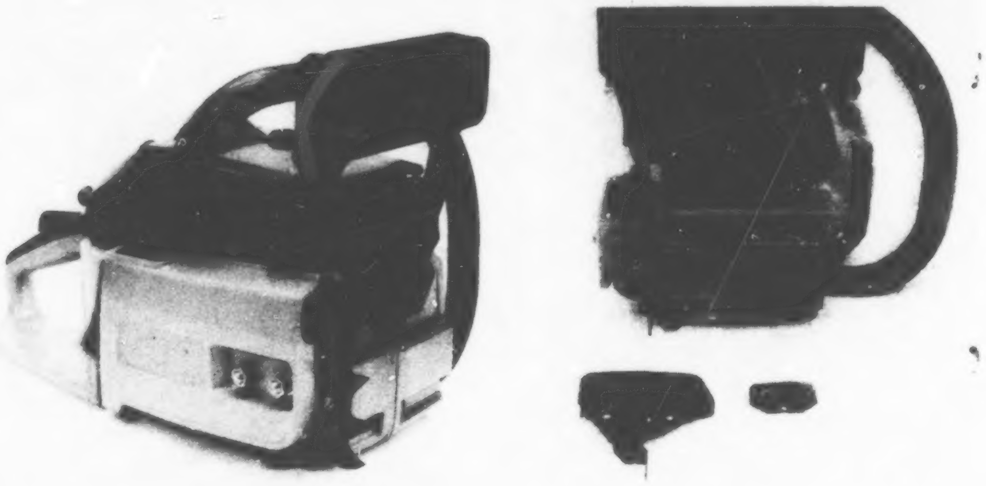
KOMATSU-ZENDAH

HMC International
20710 South Alameda Street
Long Beach, California 90810



½ wrap around bar — Bumper spikes not required

HMC 7400



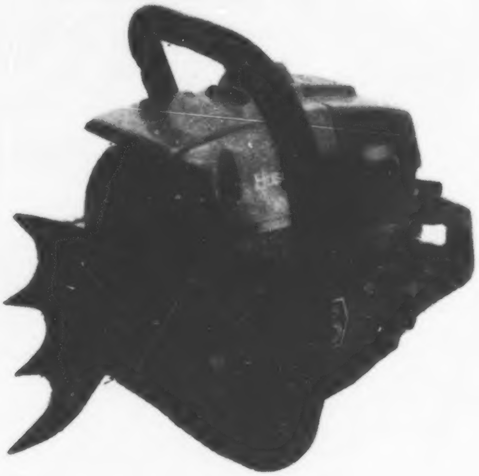
½ wrap around bar — Bumper spikes required

HMC 7600/7700

KRIZMAN ENGINEERING & SALES CO–KESCO
127 Gale Hill
Lindsay, California 93247

Bumper spikes required

½ wrap around bar

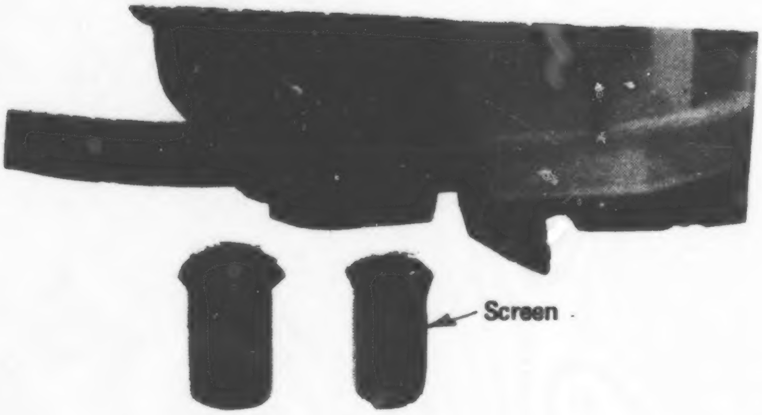


KRIZMAN CS 250
(Install on Husqvarna 285)

McCULLOCH—McCULLOCH CORP.
5401 Beethoven Street
Los Angeles, California 90066

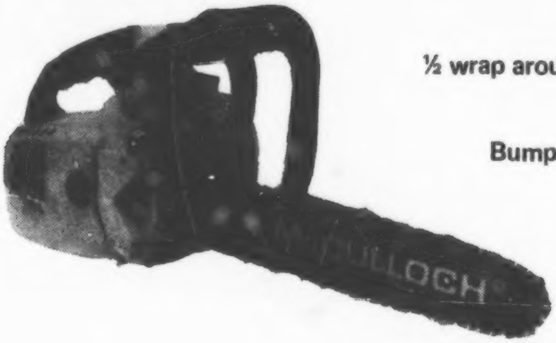
Full wrap around bar required

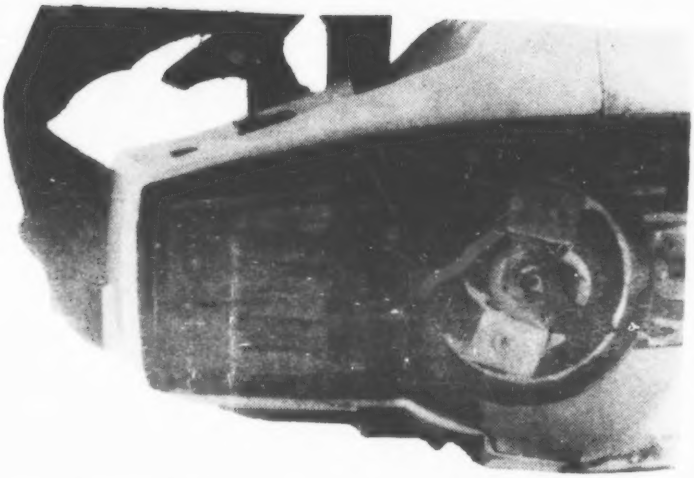
Bumper spikes optional

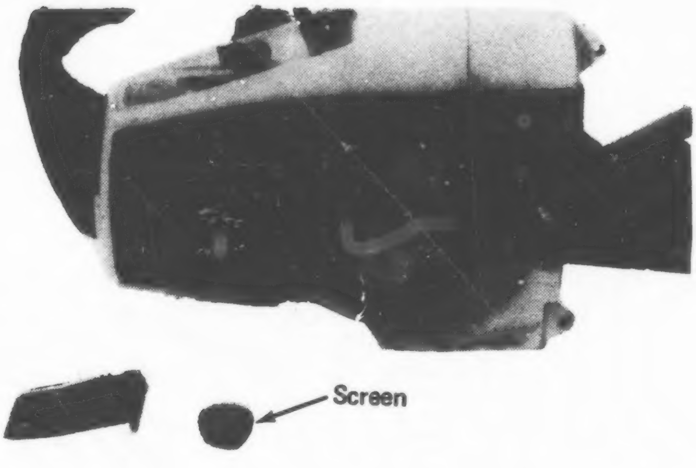


McCULLOCH SP 125C

McCULLOCH (Continued)


½ wrap around bar
Bumper spikes optional

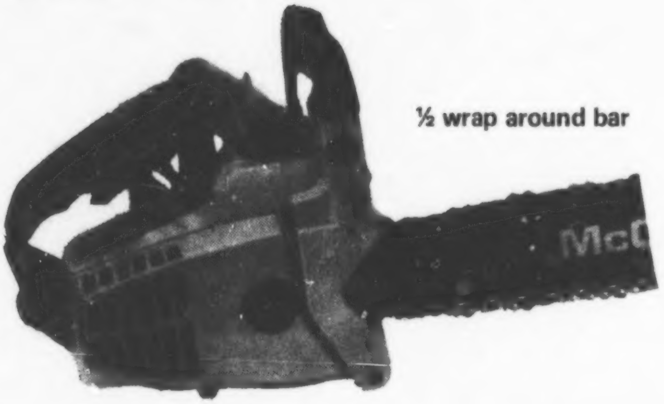




McCULLOCH MAC 130

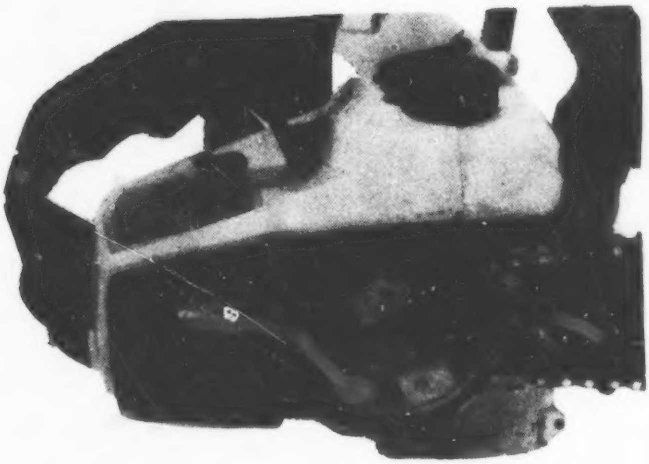
AVAILABLE

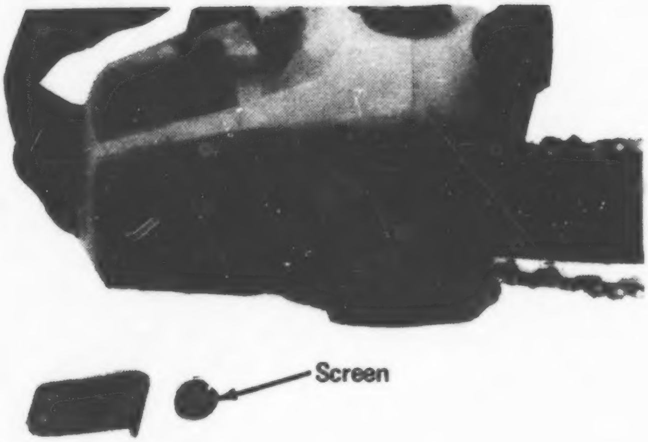
McCULLOCH (Continued)



½ wrap around bar

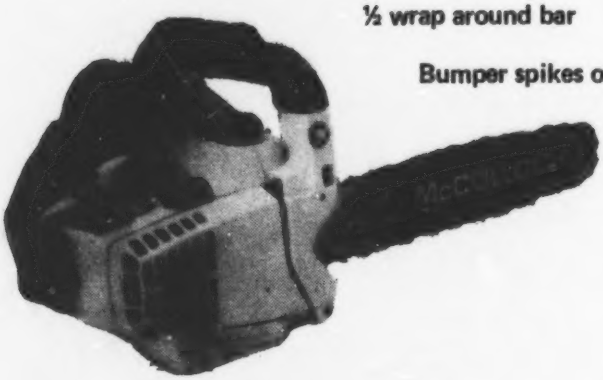
Bumper spikes optional

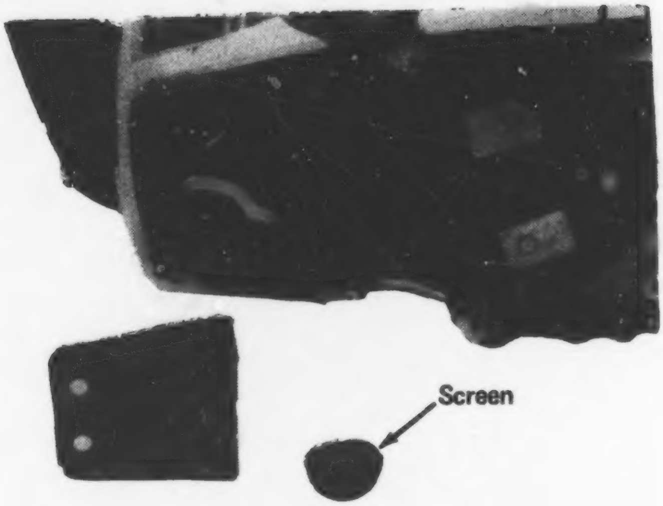




McCULLOCH MAC 130A

McCULLOCH (Continued)


½ wrap around bar
Bumper spikes optional
McCULLOCH



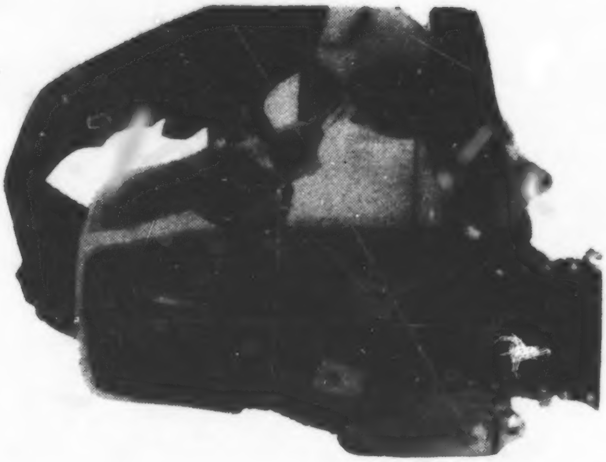
McCULLOCH MAC 140

AVAILABLE

McCULLOCH (Continued)

½ wrap around bar

Bumper spikes optional

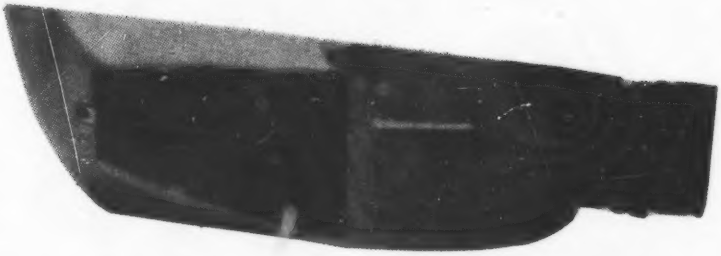


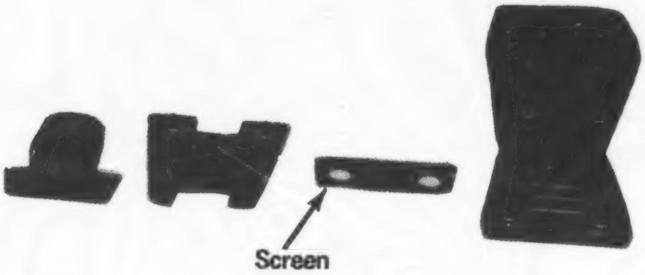
McCULLOCH MAC 140A

McCULLOCH (Continued)

½ wrap around bar

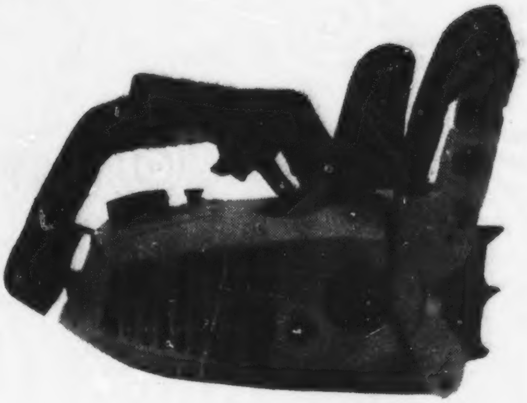
Bumper spikes optional





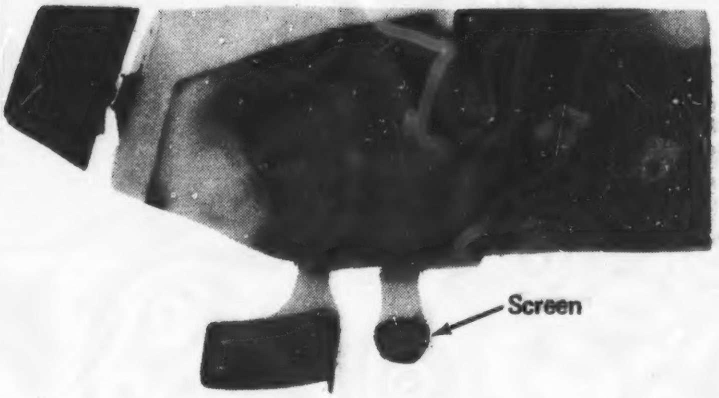
McCULLOCH MODEL MAC 250/260

McCULLOCH (Continued)



½ wrap around bar

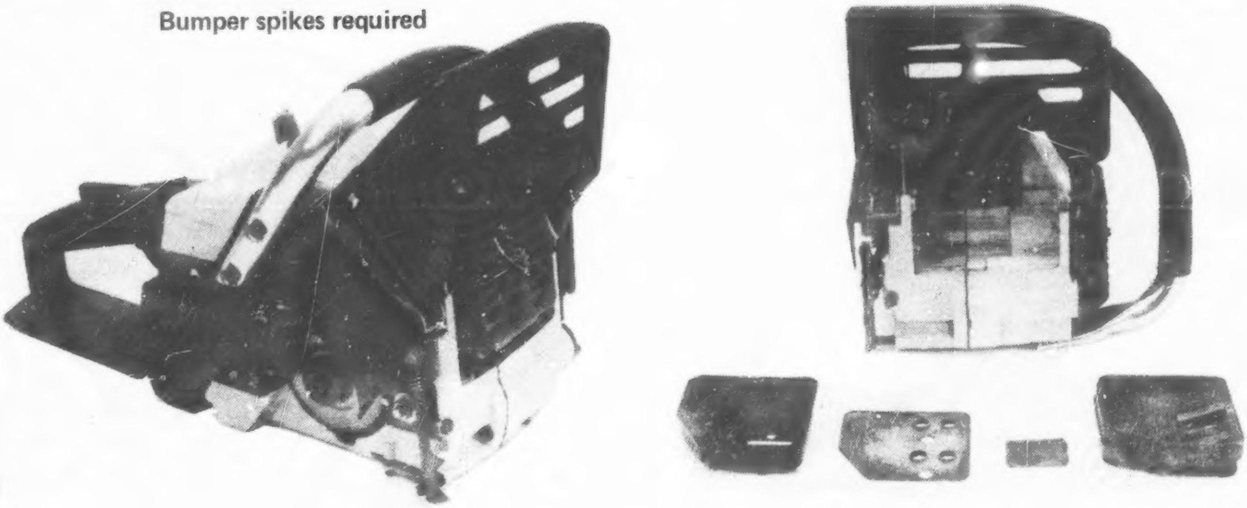
Bumper spikes optional



McCULLOCH PM 310

McCULLOCH (Continued)

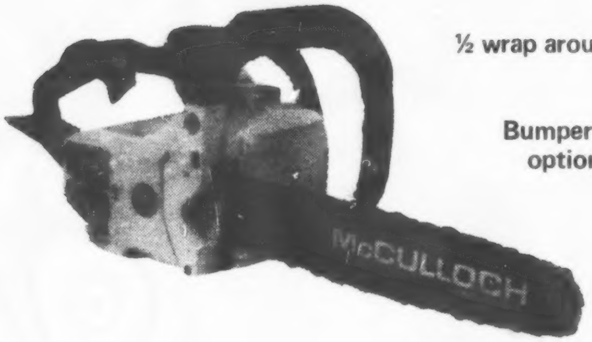
½ wrap around bar
Bumper spikes required



McCULLOCH PM 380

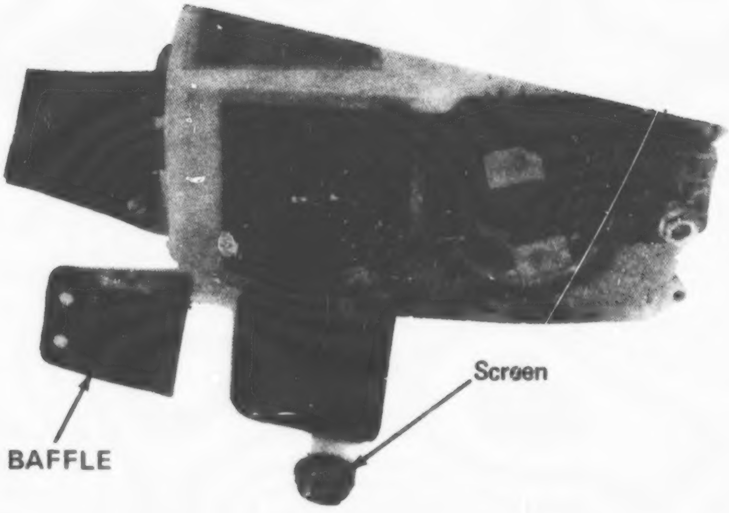
AVAILABLE

McCULLOCH (Continued)



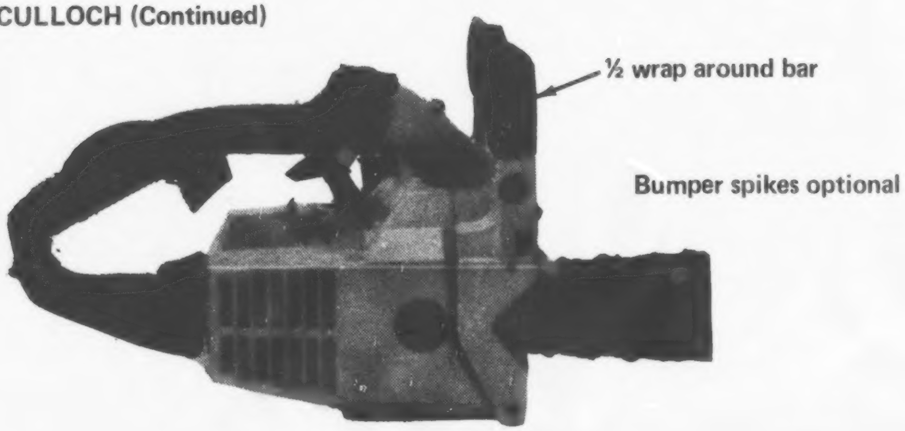
½ wrap around bar

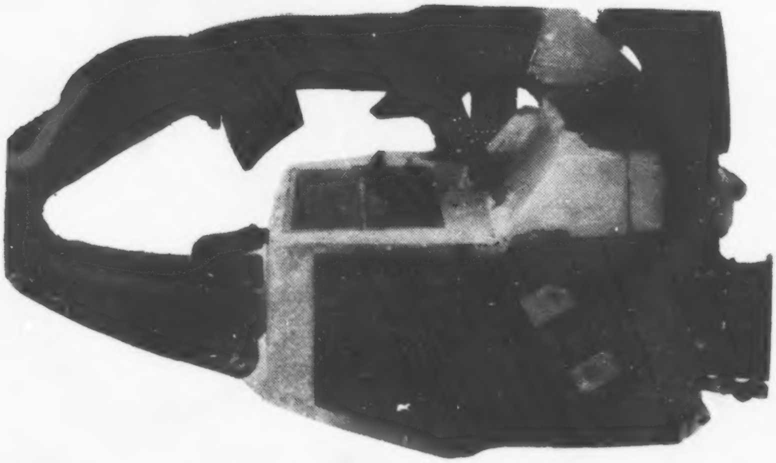
Bumper spikes optional

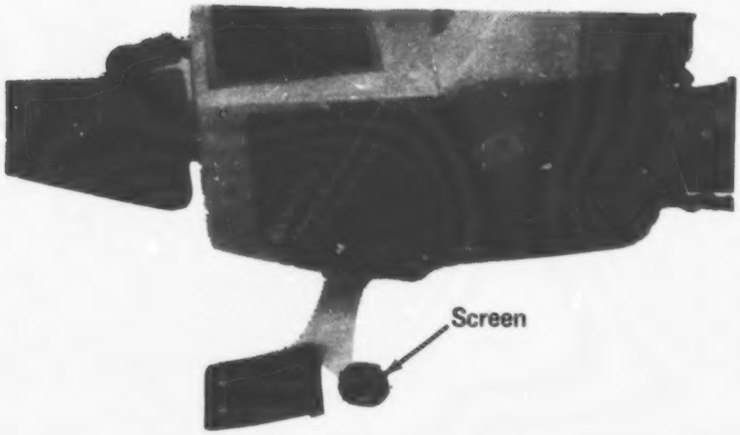

Screen
BAFFLE

McCULLOCH PM 510

McCULLOCH (Continued)

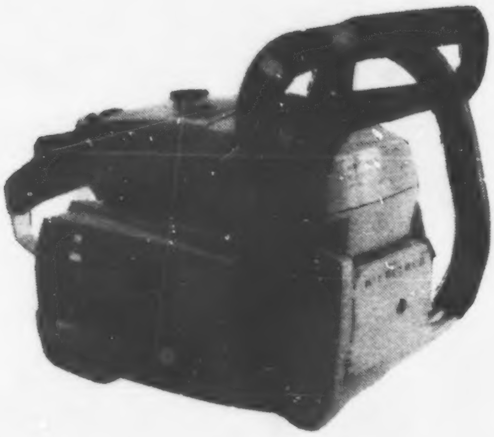

½ wrap around bar
Bumper spikes optional



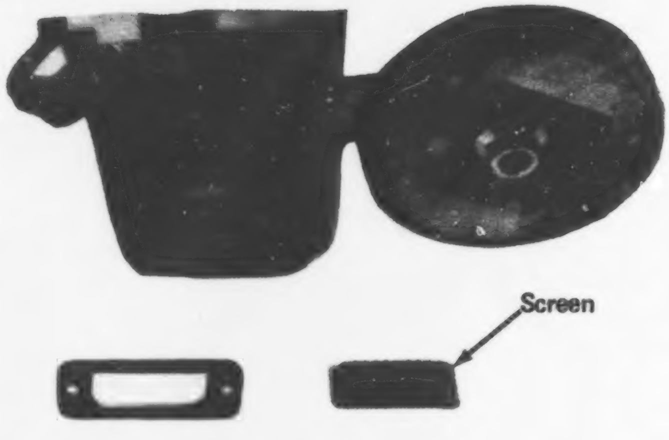


McCULLOCH PM 510A

McCULLOCH (Continued)

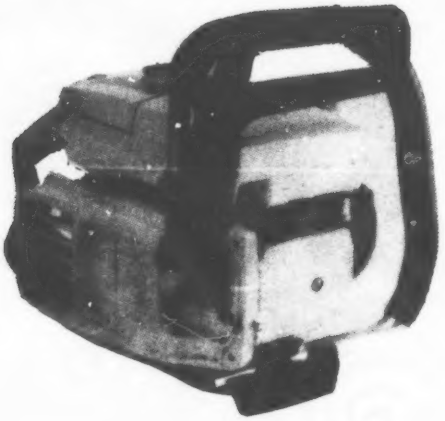

½ wrap around bar
Bumper spikes optional

NOTE: Cover may have bottom bar missing and no leg tabs



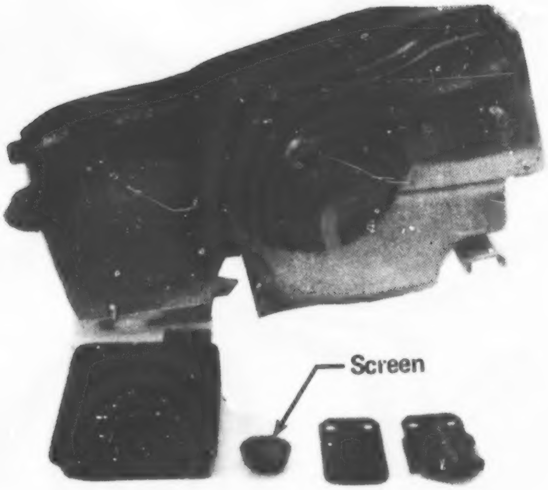
McCULLOCH PM 555

McCULLOCH (Continued)



½ wrap around bar

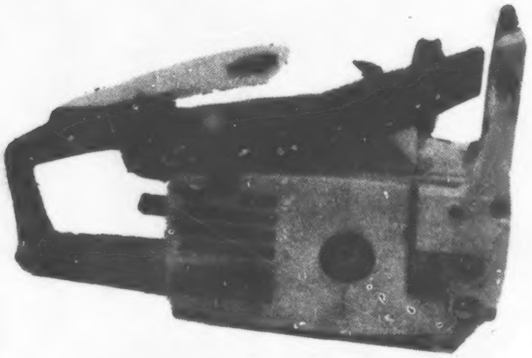
Bumper spikes optional

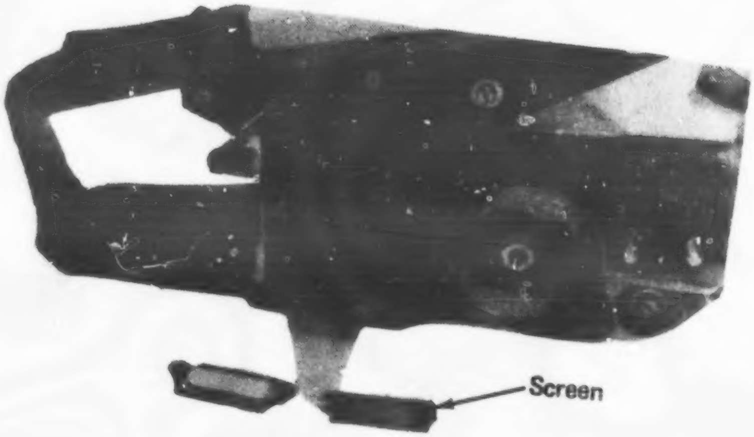


McCULLOCH PM 570

AVAILABLE

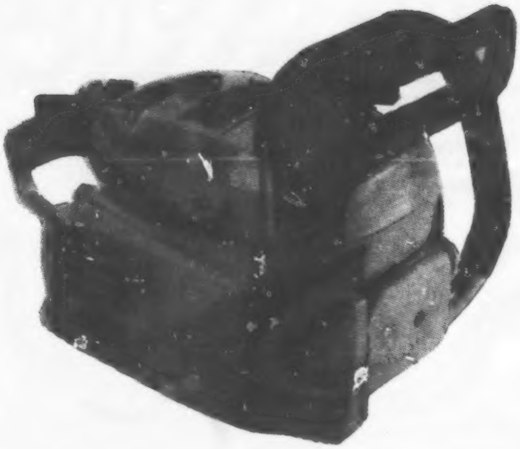
McCULLOCH (Continued)


½ wrap around bar
Bumper spikes optional



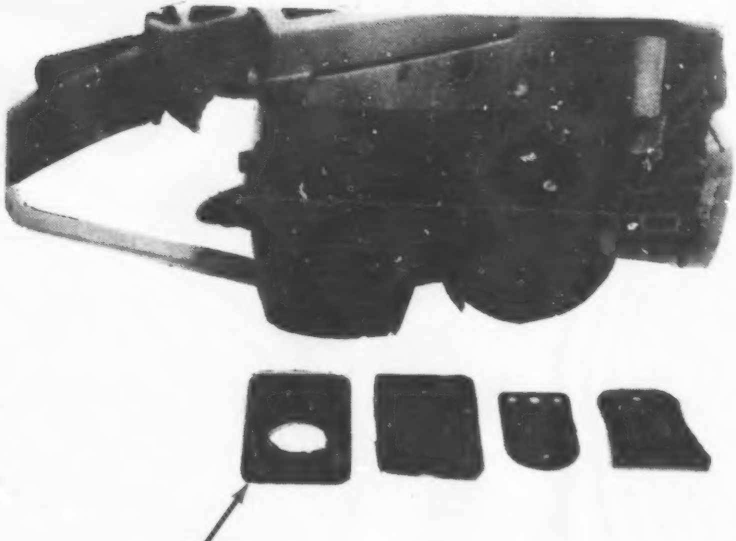
McCULLOCH PM 650

McCULLOCH (Continued)



½ wrap around bar

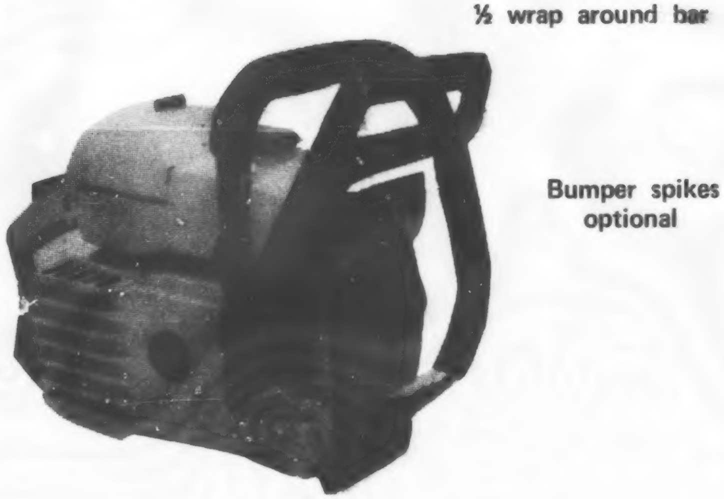
Bumper spikes optional

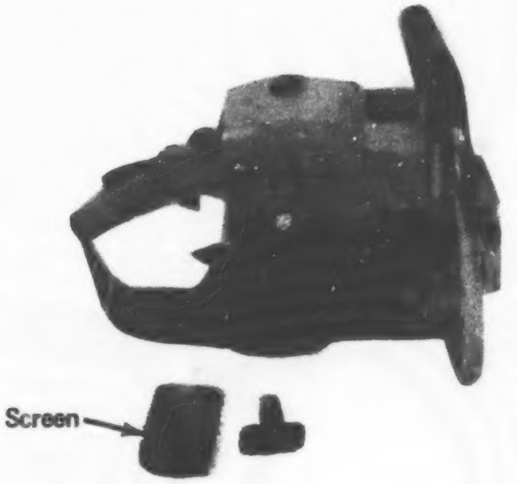


McCULLOCH PM 700

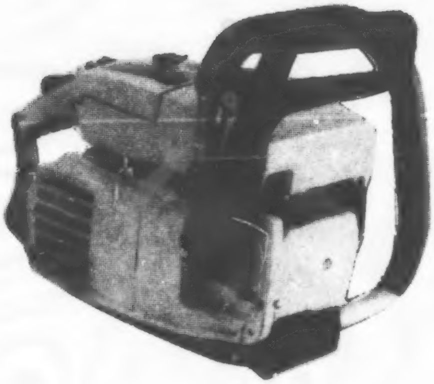
AVAILABLE

McCULLOCH (Continued)


½ wrap around bar
Bumper spikes optional



McCULLOCH MODEL PM-800



½ wrap around bar

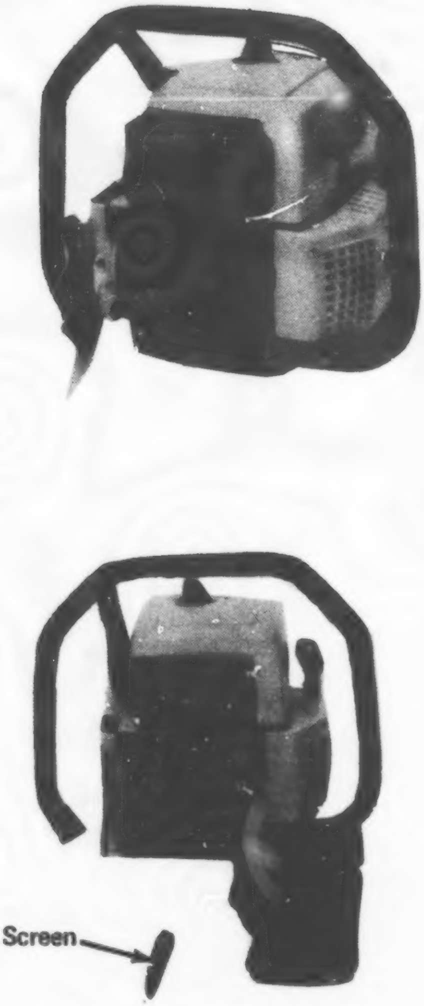
Bumper spikes optional

Screen

McCULLOCH PM 850

AVAILABLE

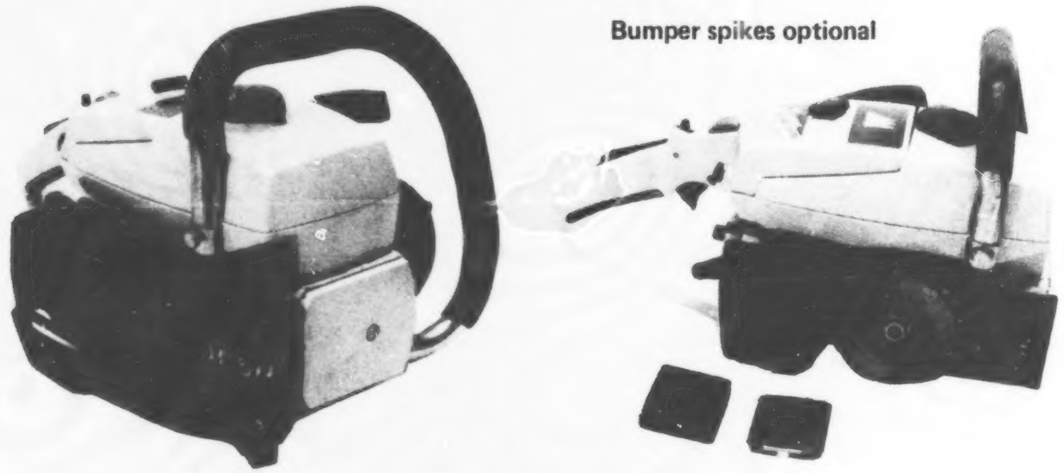
McCULLOCH (Continued)



Bumper spikes required

McCULLOCH MODEL PM 1000

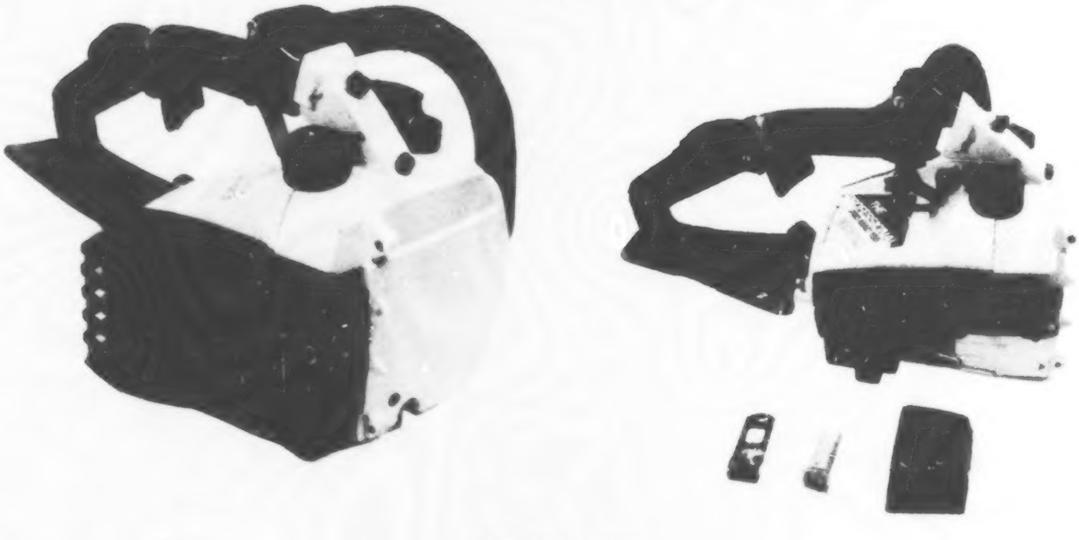
McCULLOCH (Continued)



½ wrap around bar

Bumper spikes optional

PRO MAC 10-105



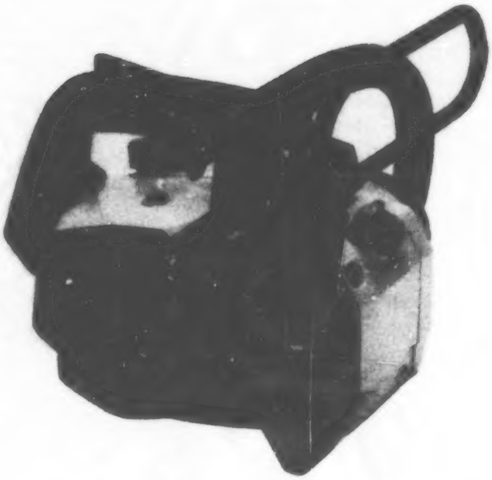
½ wrap around bar

Bumper spikes optional

PRO MAC 155

McCULLOCH (Continued)

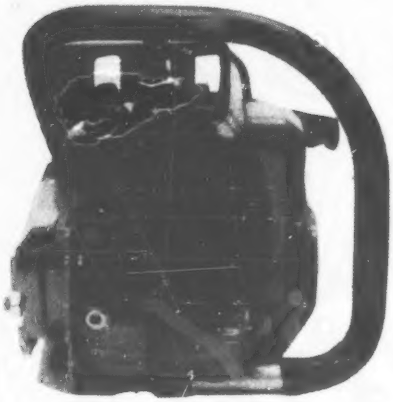
½ wrap around bar



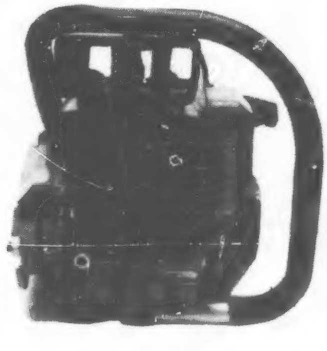
Bumper spikes optional

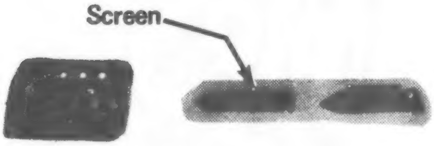
PRO MAC 355

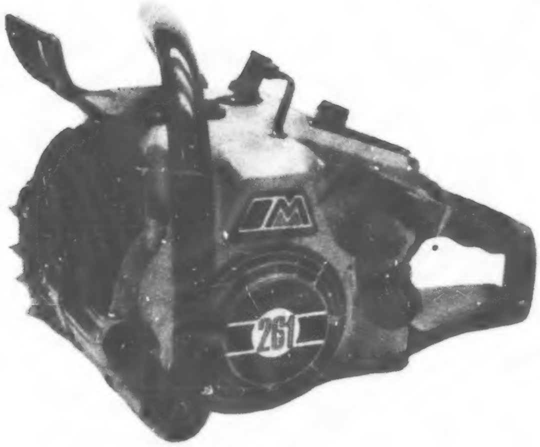
OLYMPIC–SCOTS CO., INC.
9180 Southeast 74th Avenue
Portland, Oregon 97206



½ wrap around bar



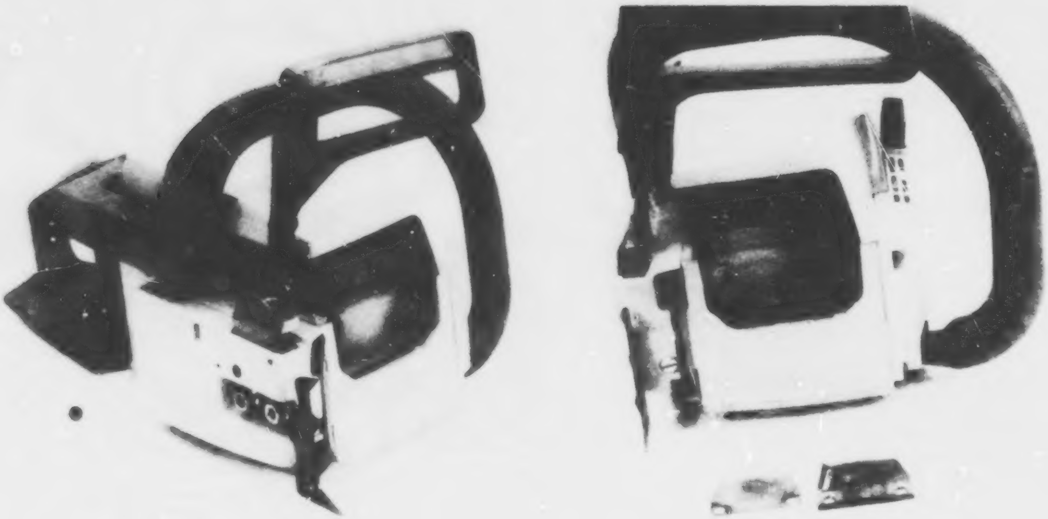




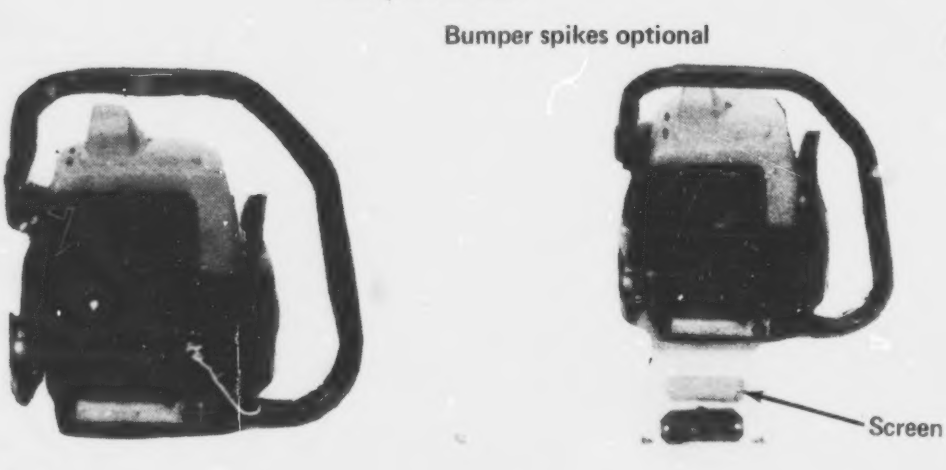
Bumper spikes
required

OLYMPIC MOD 460
(Installed on Olympic 261)

PARTNER—PARTNER PACIFIC, INC.
1767 Tribute Road—Suite E
Siera, California 95815

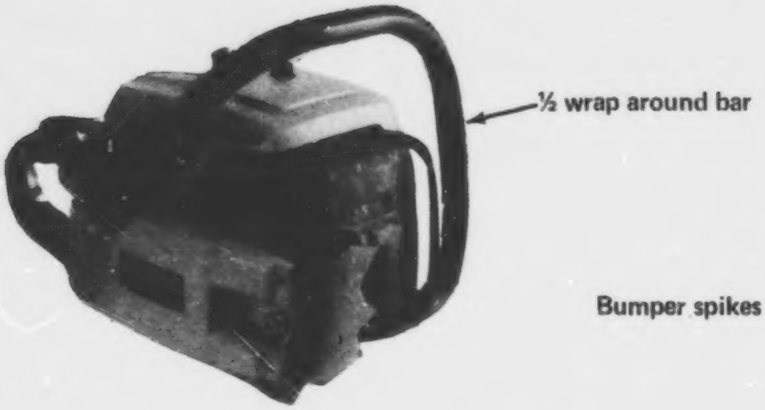


PARTNER 4

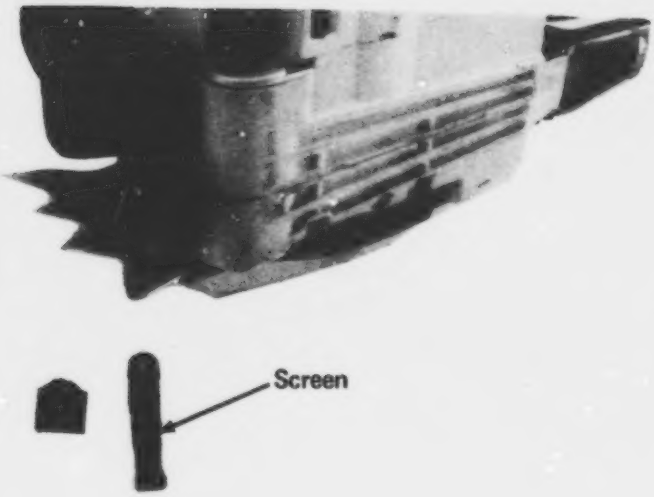

½ wrap around bar
Bumper spikes optional
Screen

PARTNER F65

PARTNER (Continued)

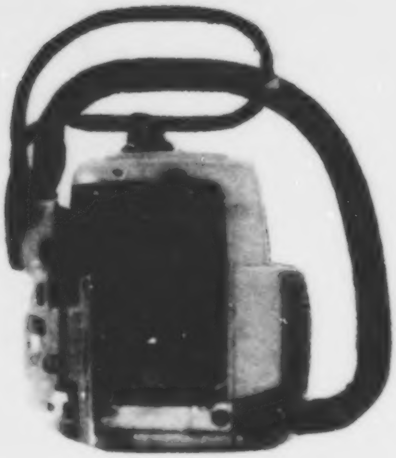

½ wrap around bar

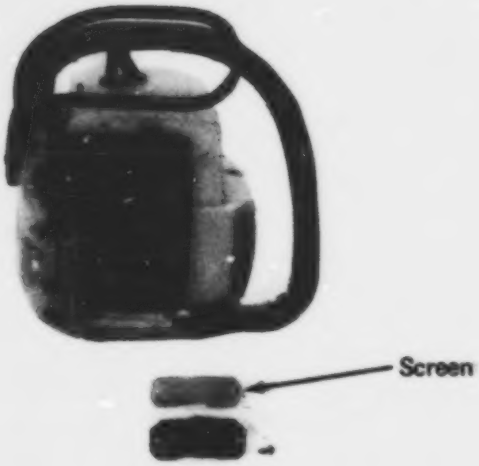
Bumper spikes required



PARTNER P100

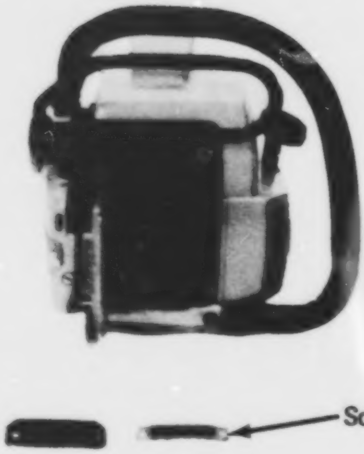
PARTNER (Continued)


½ wrap around bar
Bumper spikes required

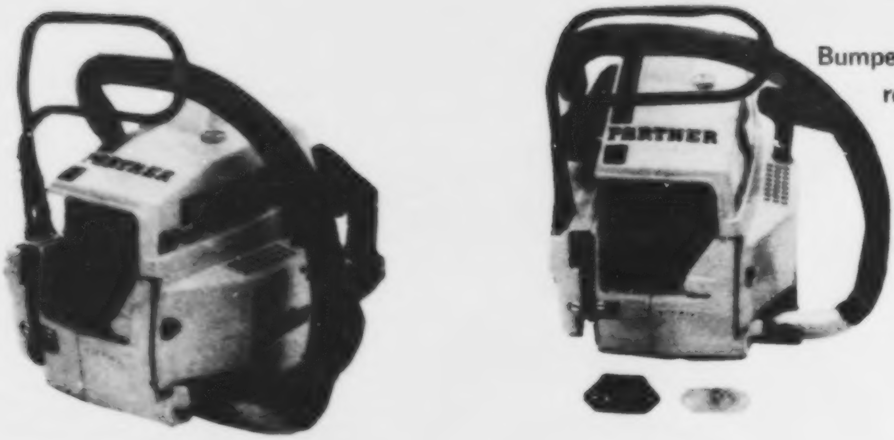


PARTNER R420

PARTNER (Continued)

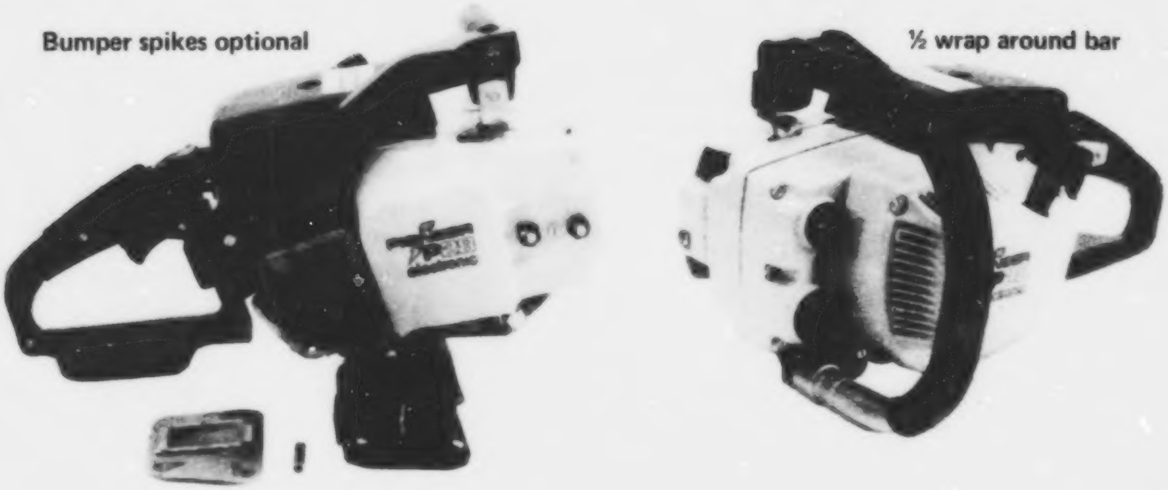

½ wrap around bar
Bumper spikes required
Screen

PARTNER 350390


½ wrap around bar
Bumper spikes required
PARTNER
PARTNER

PARTNER P5000

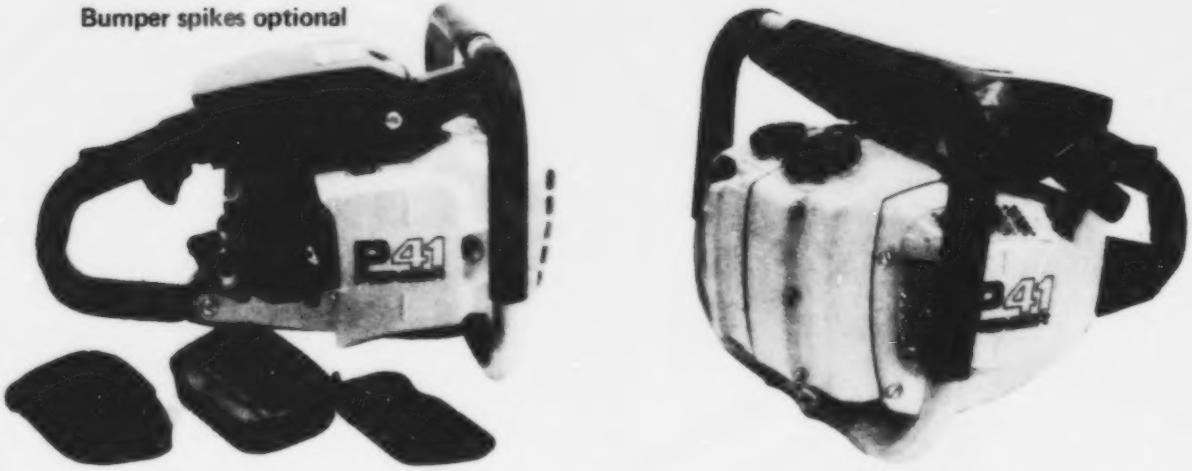
PIONEER CHAIN SAW CORP., INC.
775 Neal Drive
Peterborough, Ontario, Canada K9J 6X7



Bumper spikes optional

½ wrap around bar

P26/P28 "E"



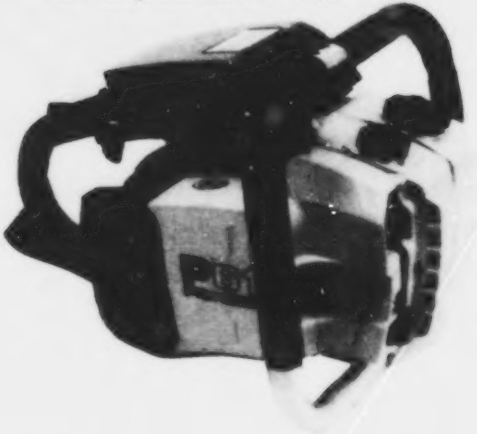
Bumper spikes optional

Full wrap around bar required

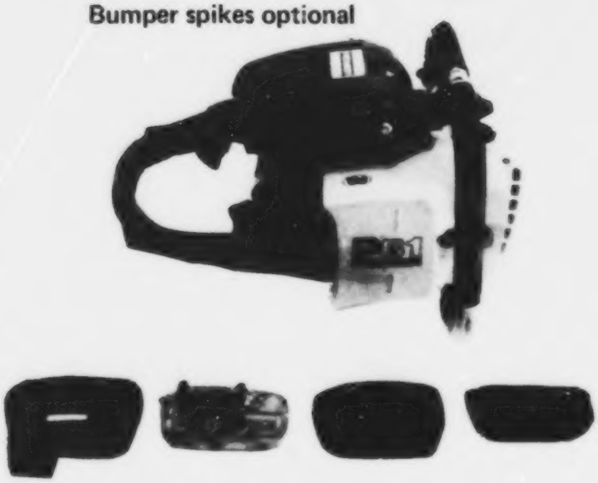
P41W

PIONEER (Continued)

Full wrap around bar required



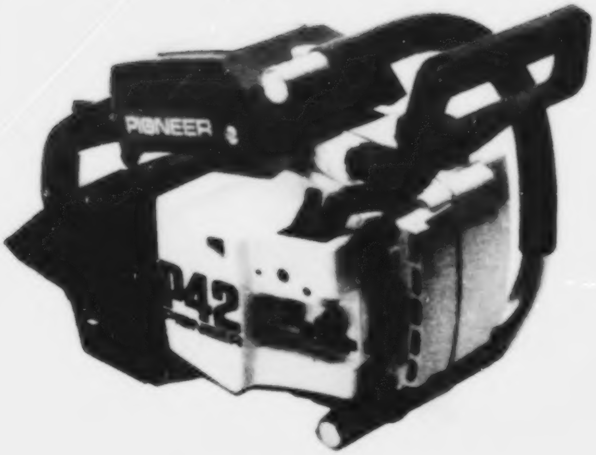
Bumper spikes optional

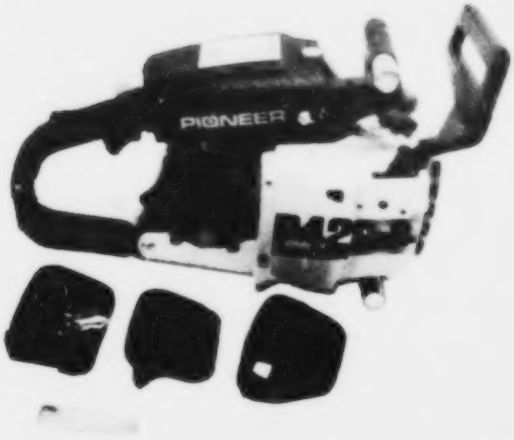


PIONEER WR

½ wrap around bar

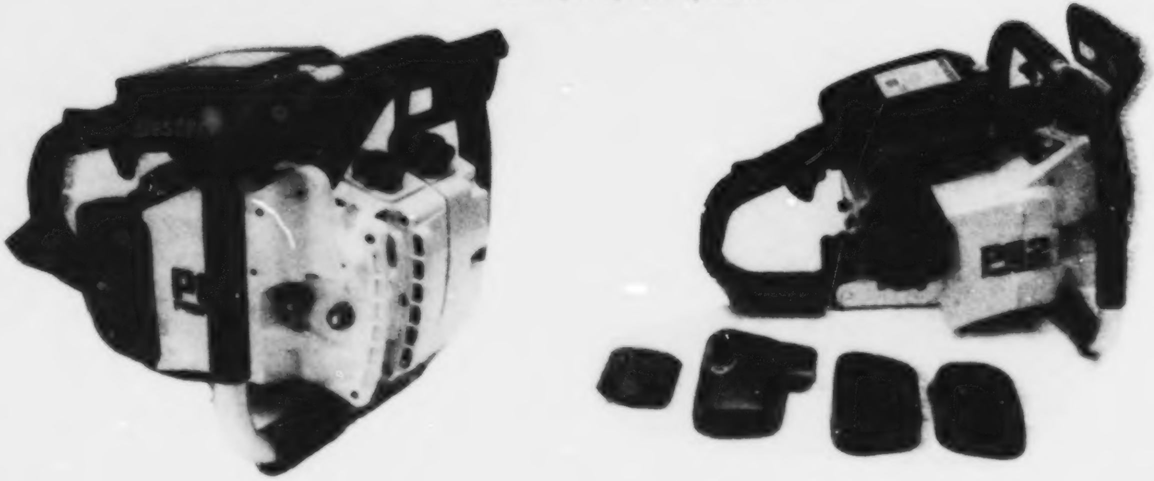
Bumper spikes optional


PIONEER
P42


PIONEER
P42

P42/38/FL

PIONEER



Full wrap around bar required

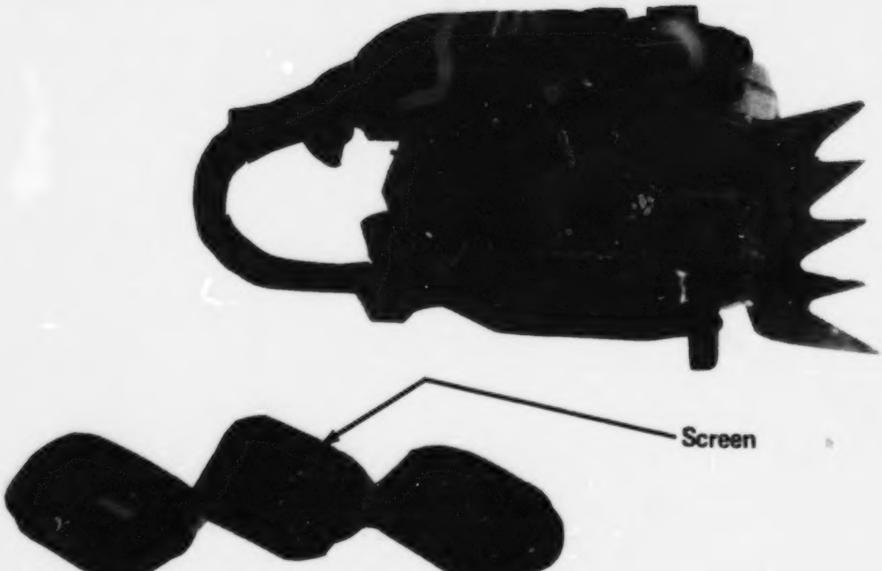
Bumper spikes optional

PIONEER WR 1

PIONEER (Continued)

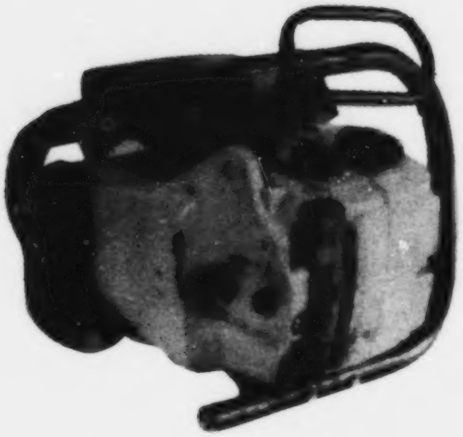
½ wrap around bar

Bumper spikes optional


Screen
Bottom Cover
Screen Cover
Top Cover

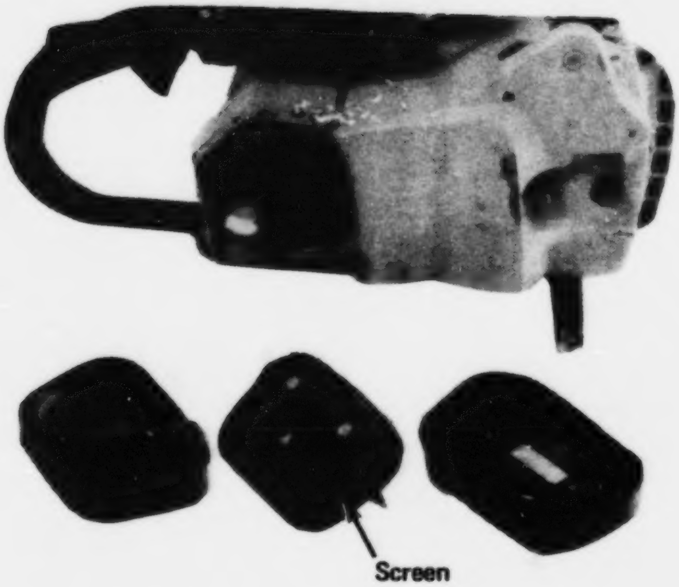
PIONEER P50W

PIONEER (Continued)



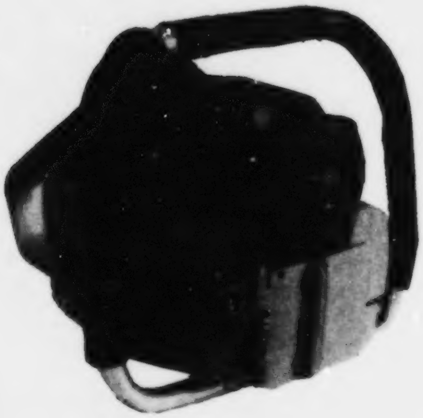
½ wrap around bar

Bumper spikes optional

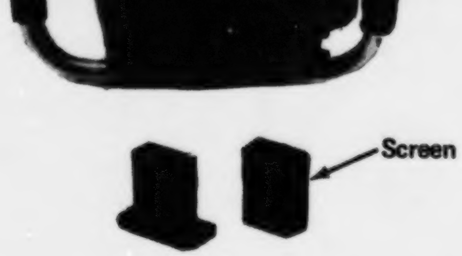


PIONEER P55W

POULAN–BEAIRD POULAN DIVISION
Emerson Electric Company
P. O. Box 9329
Shreveport, Louisiana 71109



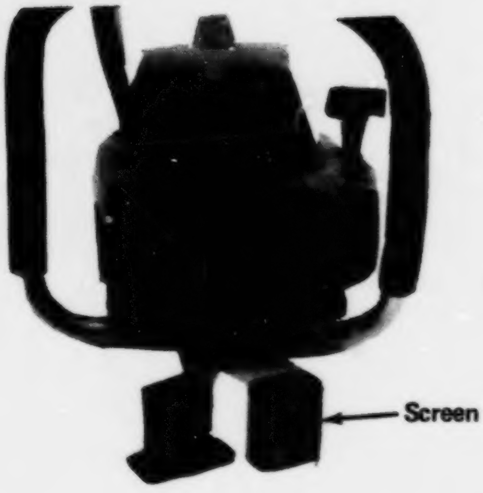
Bumper spikes optional



POULAN 5200 CVA

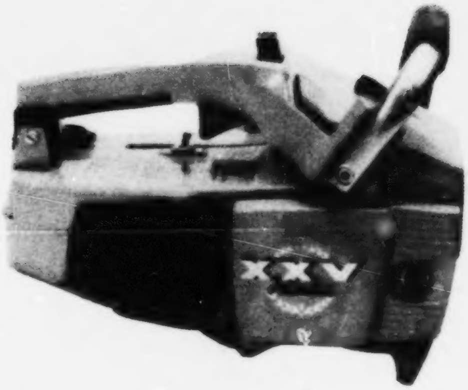
POULAN (Continued)

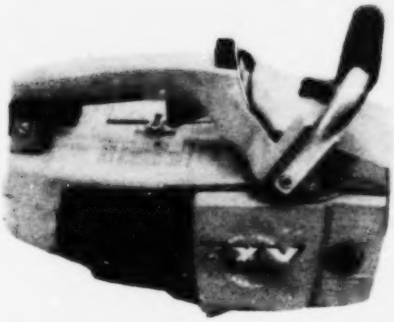
Bumper spikes optional



POULAN 4200 CVA

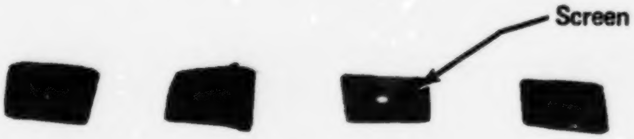
POULAN (Continued)





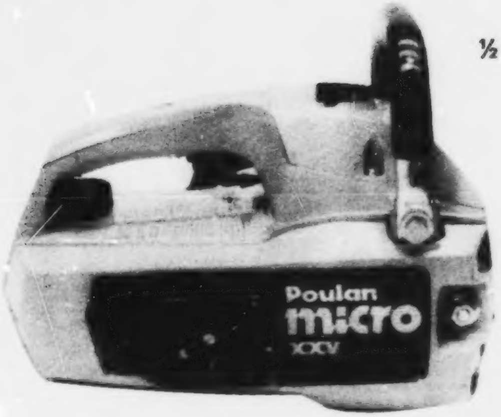
½ wrap around bar

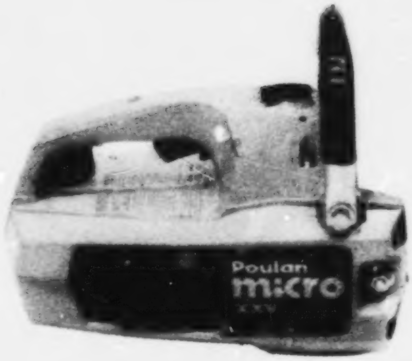
Bumper spikes optional



POULAN SUPER XXV-CVA

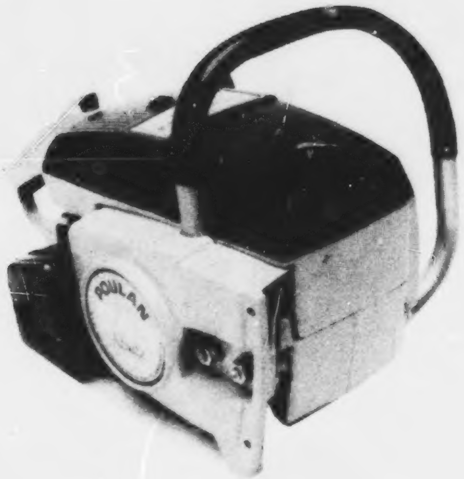
POULAN (Continued)


½ wrap around bar
Bumper spikes optional
Poulan
micro
XXV


Poulan
micro
XXV

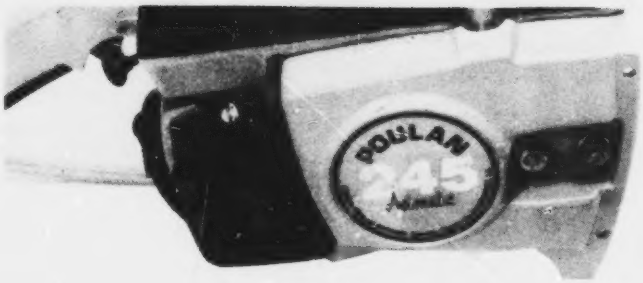
POULAN MICRO XXV

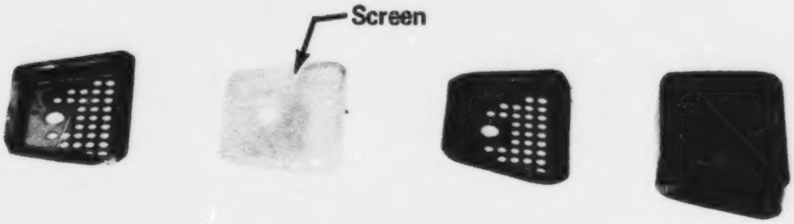
POULAN (Continued)



½ wrap around bar

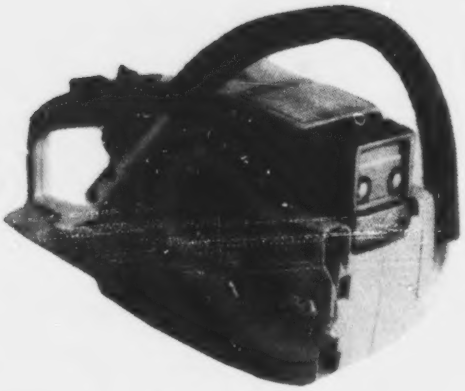
Bumper spikes optional

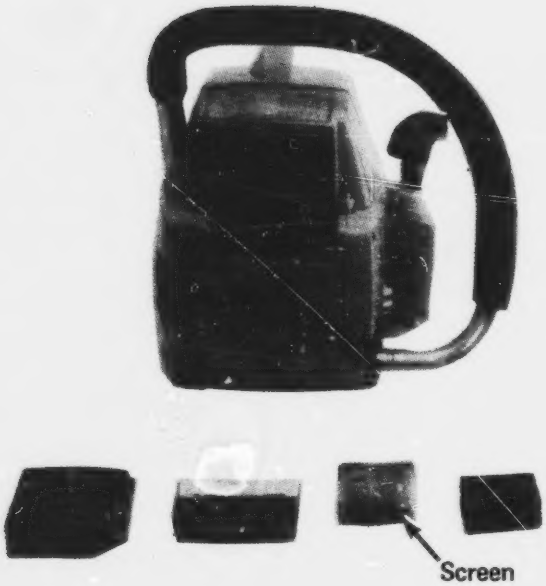

POULAN
245
Automatic



POULAN MOD 245

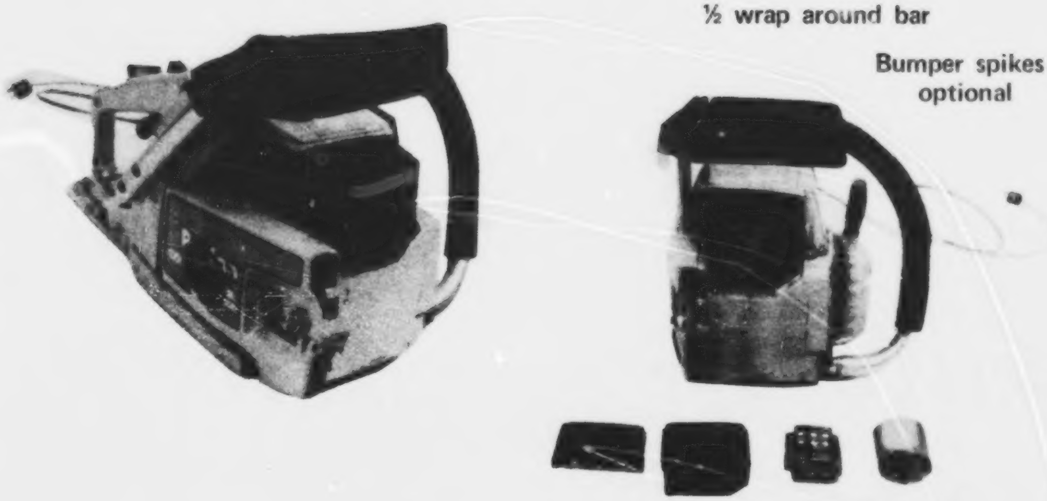
POULAN (Continued)


½ wrap around bar
Bumper spikes optional



POULAN MODEL 3400

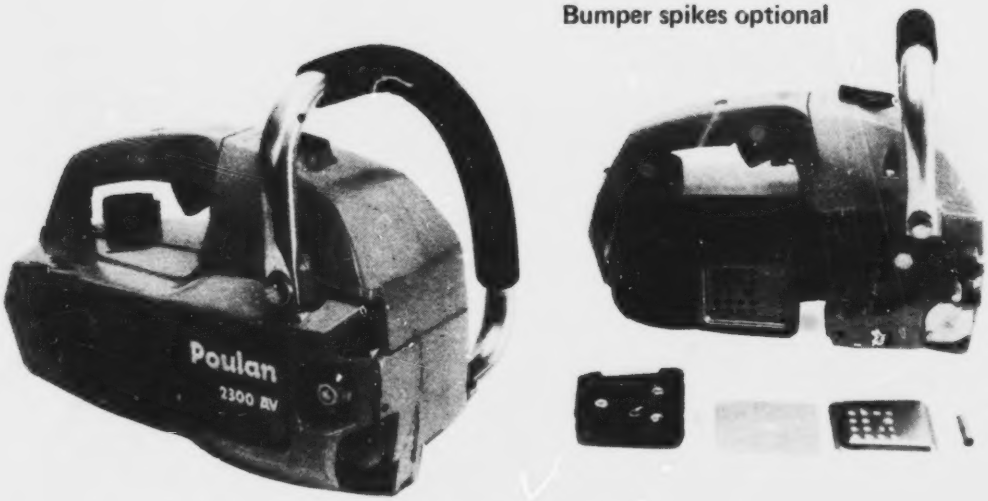
POULAN (Continued)



½ wrap around bar

Bumper spikes optional

POULAN 3700

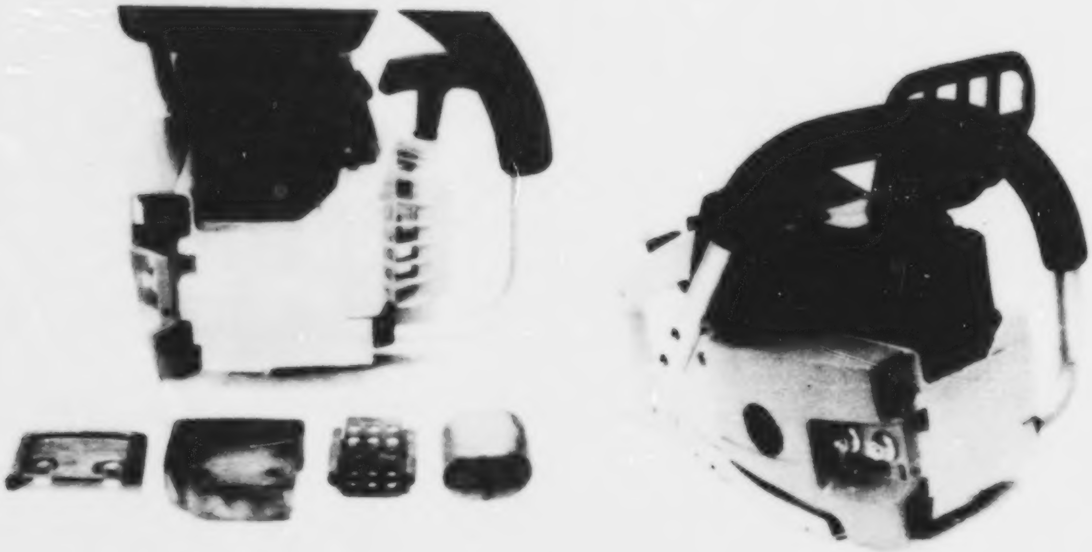


½ wrap around bar

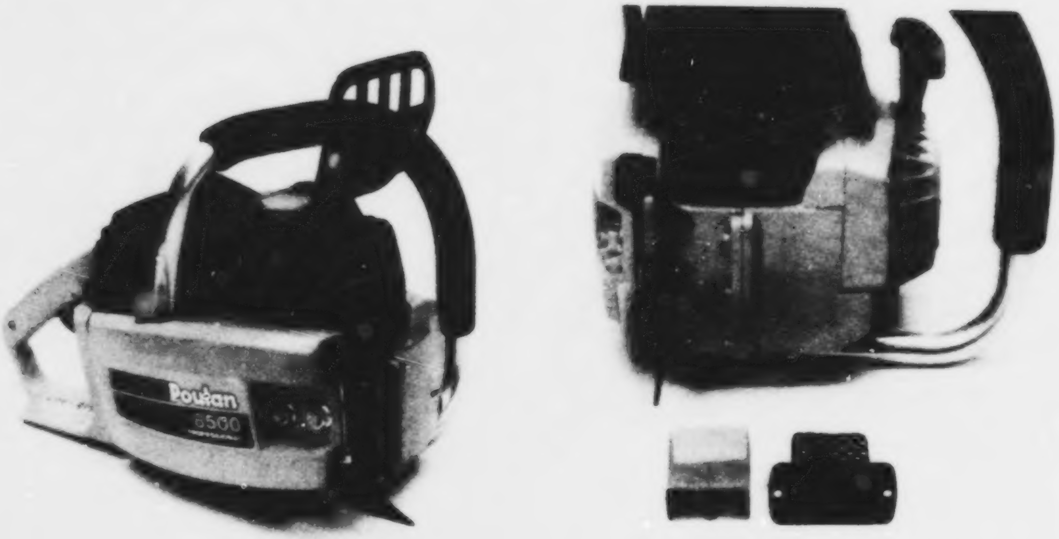
Bumper spikes optional

EXHAUST 69034 KIT

POULAN (Continued)



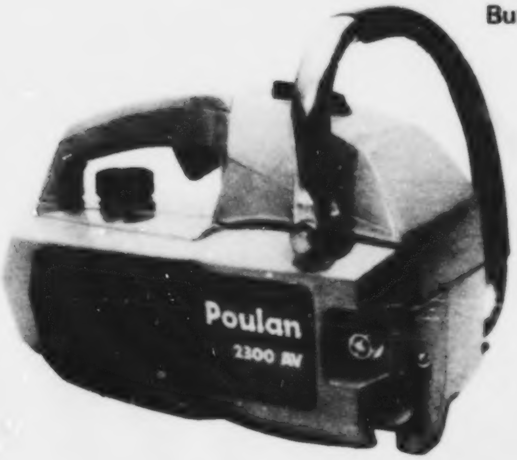
4000


Poulan
3500

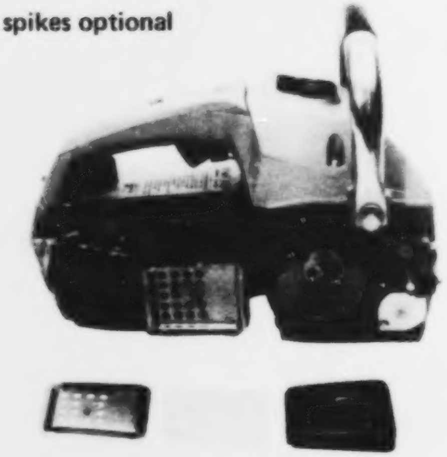
3500

POULAN (Continued)

½ wrap around bar

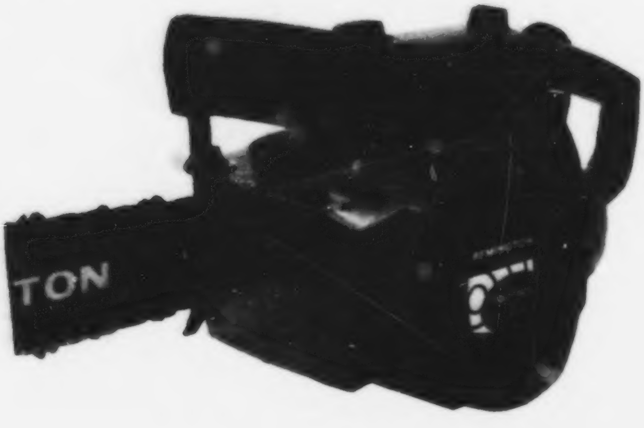

Poulan
2300 AV

Bumper spikes optional



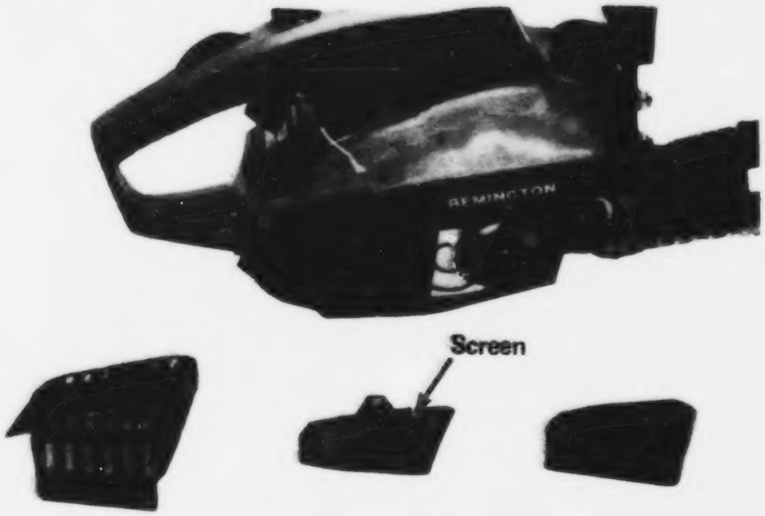
EXHAUST "EXPORT GUARD"

REMINGTON—DESA INDUSTRIES
25000 South Western Avenue
Park Forest, Illinois 60466



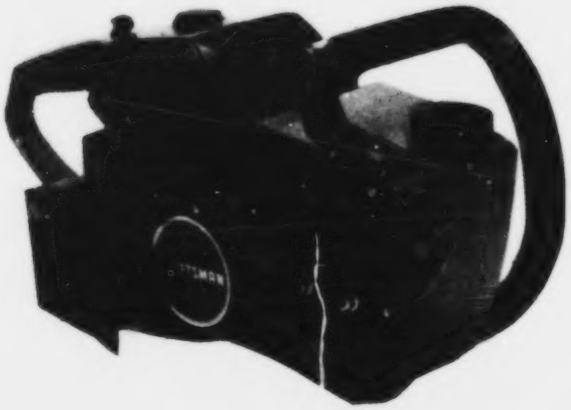
½ wrap around bar

Bumper spikes optional


REMINGTON
Screen

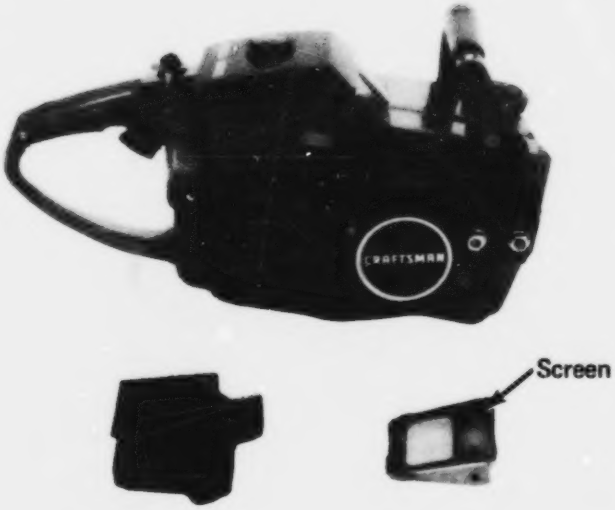
DESA MIGHTY MITE 400

ROPER—ROPER OUTDOOR PRODUCTS
Broadway and Schuyler Avenue
Bradley, Illinois 60915



½ wrap around bar

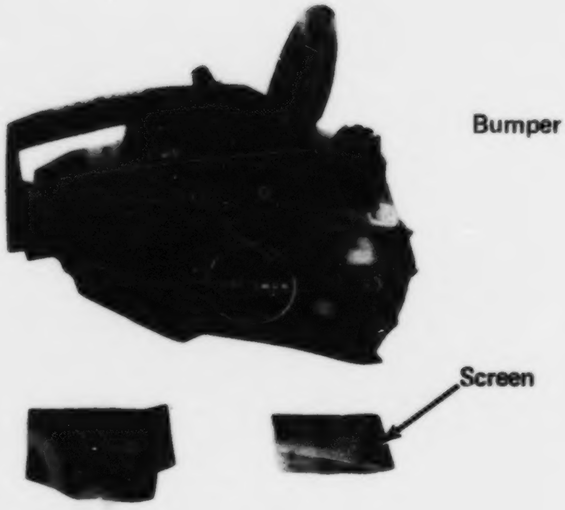
Bumper spikes not
provided or required



SEARS CRAFTSMAN M361760

ROPER (Continued)

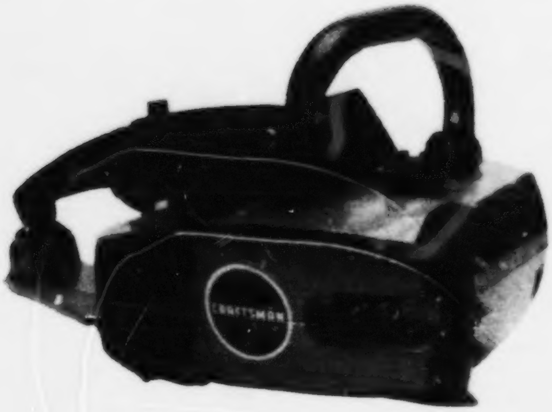
½ wrap around bar

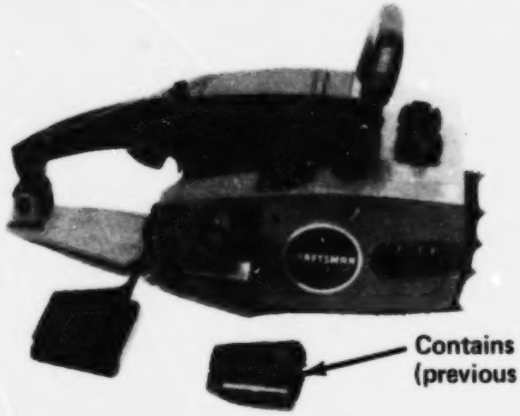


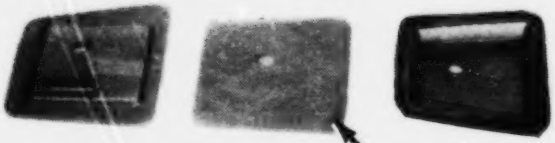
Bumper spikes not provided or required

SEARS CRAFTSMAN M361560

ROPER (Continued)

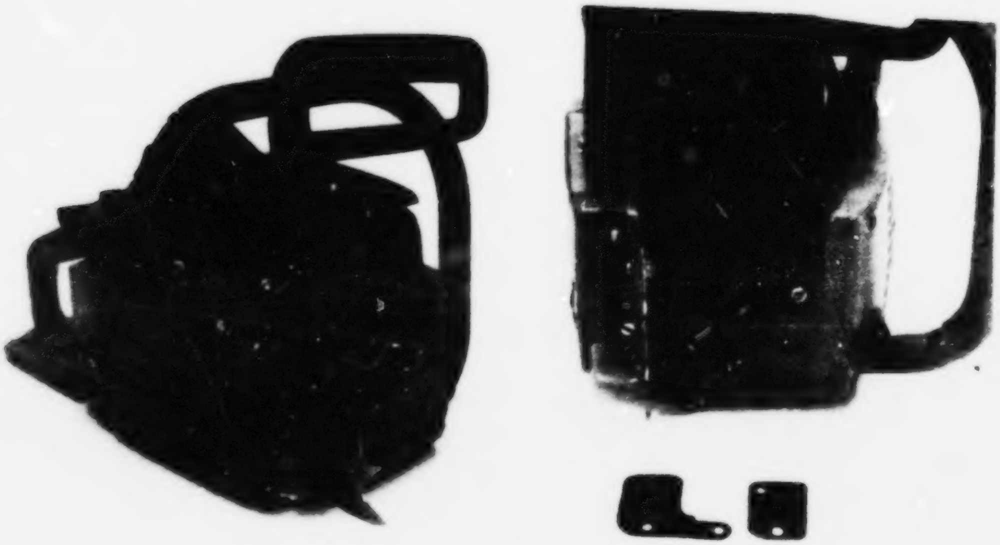

½ wrap around bar
Bumper spikes optional


Contains screen (previous design)


Screen (current design)

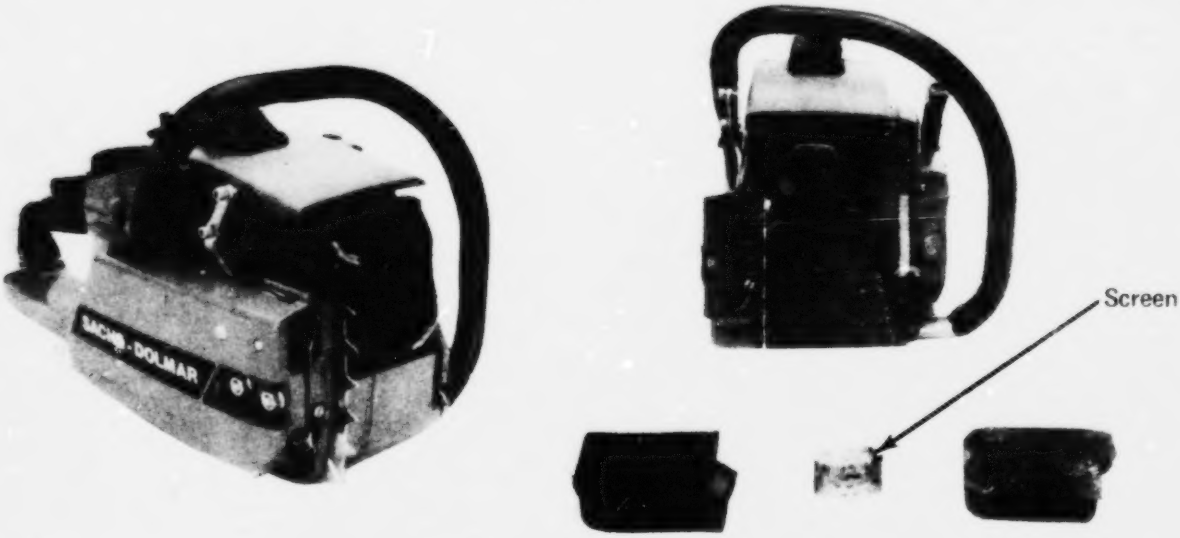
ROPER M361780

SACHS-DOLMAR
708 Florence Street
Atlanta, Texas 75551



½ wrap around bar – Bumper spikes required

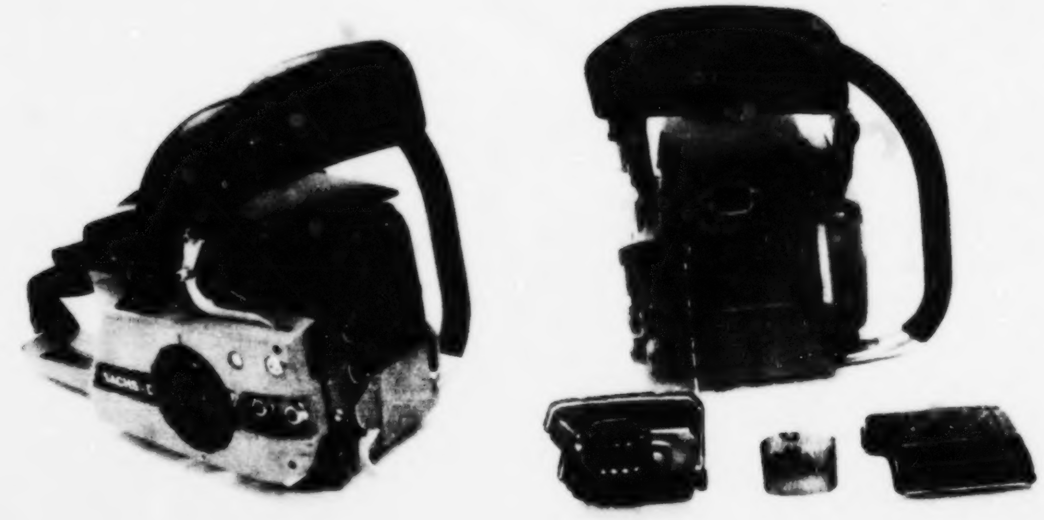
110


Screen
SACHS-DOLMAR

½ wrap around bar – Bumper spikes required

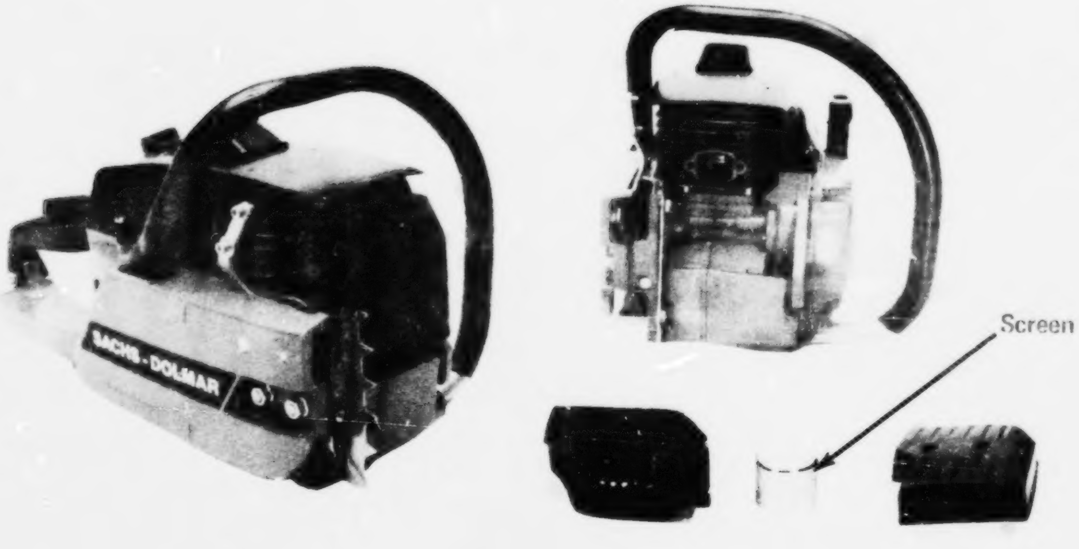
114

SACHS-DOLMAR (Continued)



½ wrap around bar — Bumper spikes required

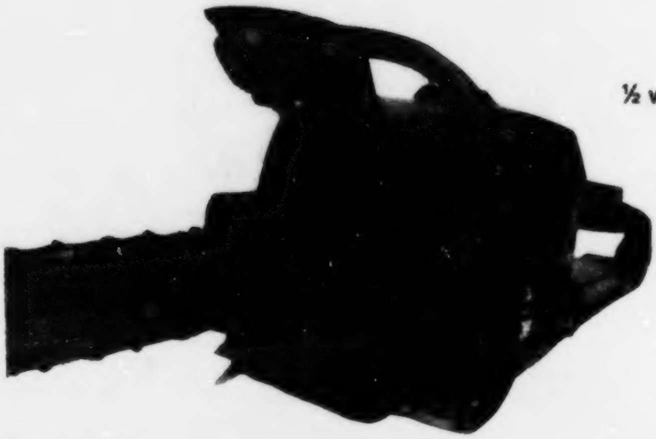
116


SACHS-DOLMAR
Screen

½ wrap around bar — Bumper spikes required

119

SACHS-DOLMAR (Continued)

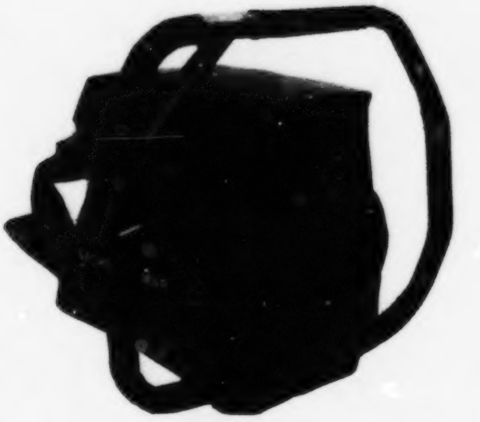


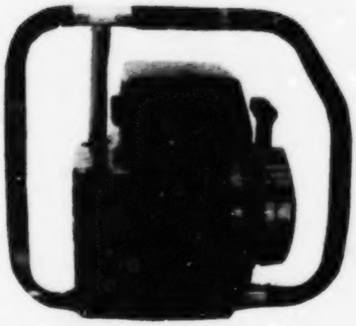
½ wrap around bar

Bumper spikes required

DOLMAR MOD 123

SACHS-DOLMAR (Continued)





Bumper spikes required'

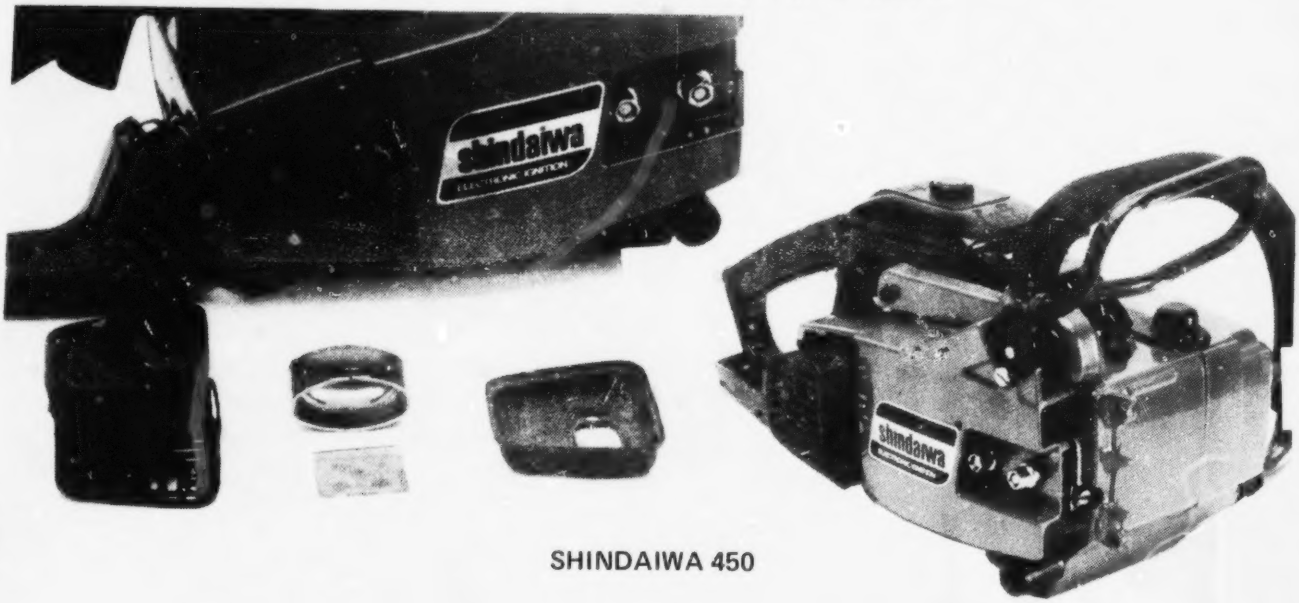
DOLMAR MOD 153

SACHS-DOLMAR (Continued)

Full wrap around bar

Bumper spikes required

SHINDAIWA
11975 S.W. Herman Road
Sherwood, Oregon 97140

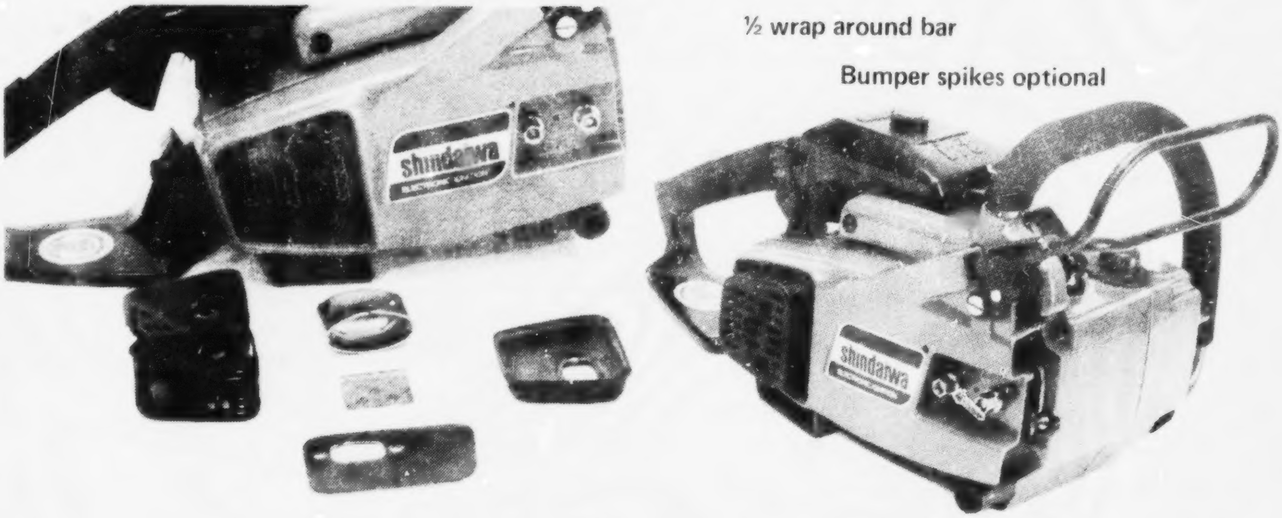


½ wrap around bar

Bumper spikes optional

shindaiwa
ELECTRONIC IGNITION
shindaiwa
ELECTRONIC IGNITION

SHINDAIWA 450



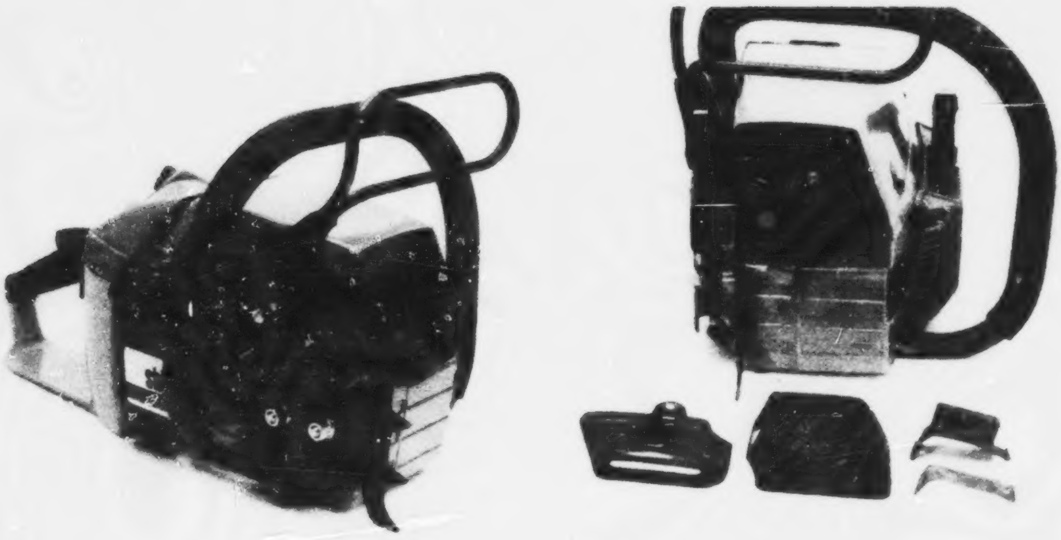
½ wrap around bar

Bumper spikes optional

shindaiwa
ELECTRONIC IGNITION
shindaiwa
ELECTRONIC IGNITION

SHINDAIWA 500

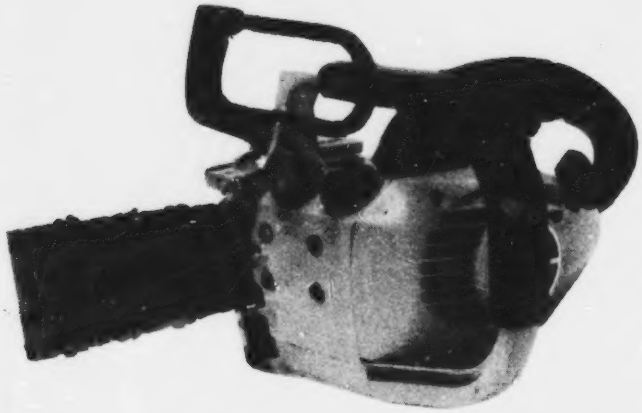
SHINDAIWA (Continued)



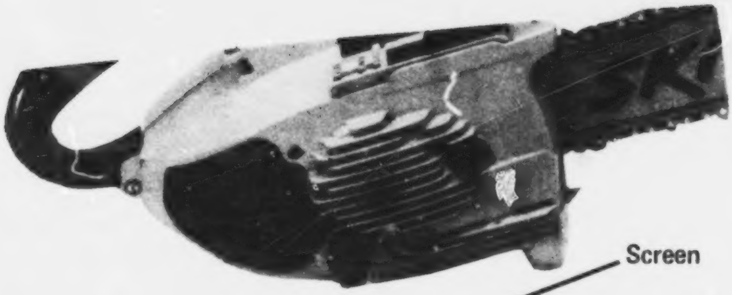
½ wrap around — Bumper spikes required

680

SKIL–SKIL CORP.
5033 Elston Avenue
Chicago, Illinois 60630

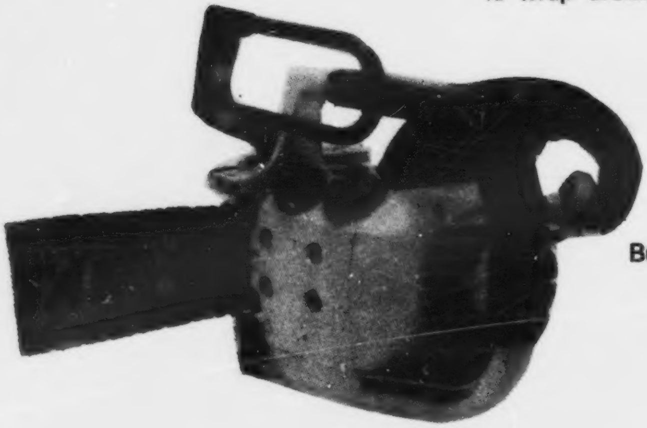

½ wrap around bar

Bumper spikes not provided or required



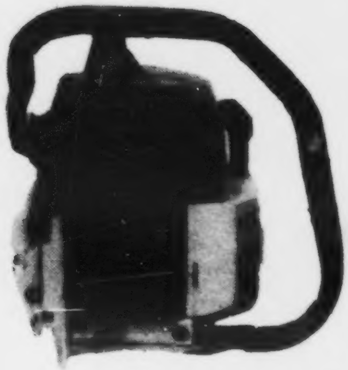
SKIL 320500

SKIL (Continued)


½ wrap around bar
Bumper spikes optional

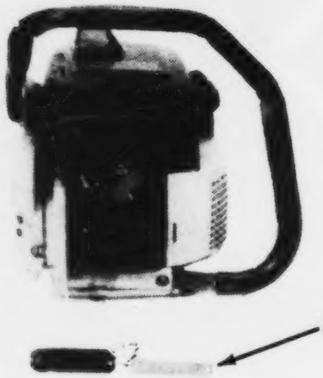
SKIL 320502

SKIL (Continued)



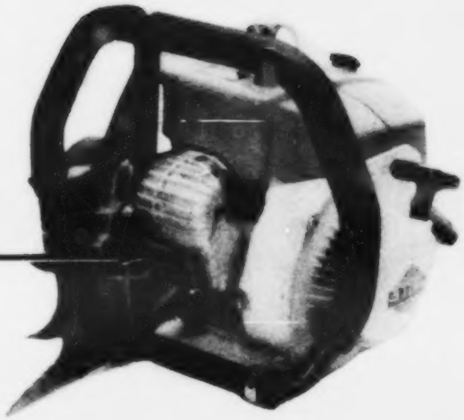
½ wrap around bar

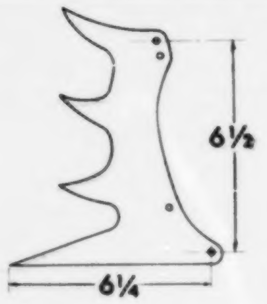
Bumper spikes required



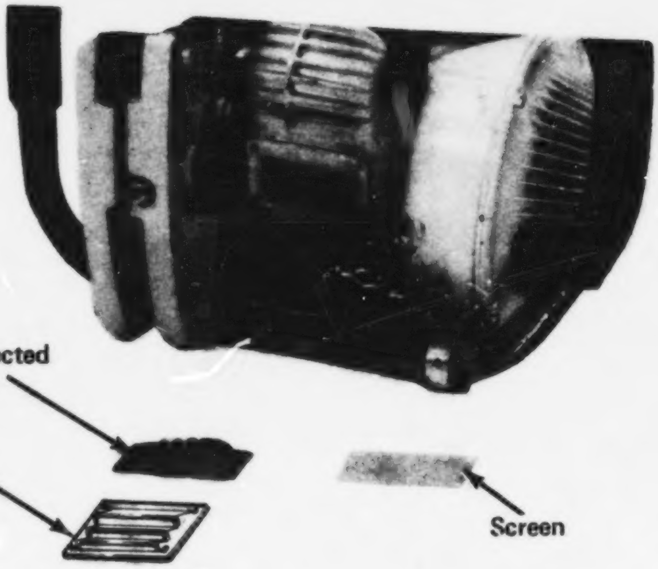
SKIL 750355

STIHL—STIHL, INC.
536 Viking Drive
Virginia Beach, Virginia 23452


West Coast Spikes required
Full wrap around bar required
Legal cover with louvers directes downward

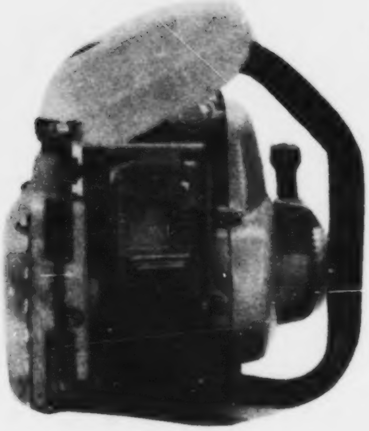


Detail of West Coast spike


Illegal cover if louvers directed to the side as shown here
Legal cover, louvers directed down
Screen

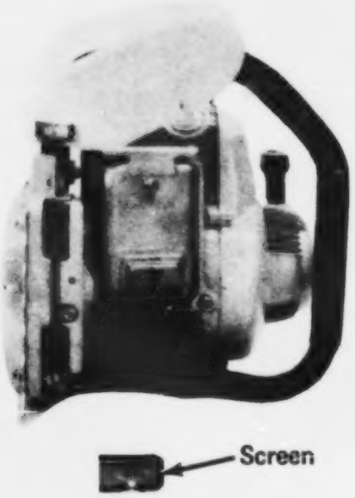
STIHL 1106-140-0607

STIHL (Continued)



½ wrap around bar

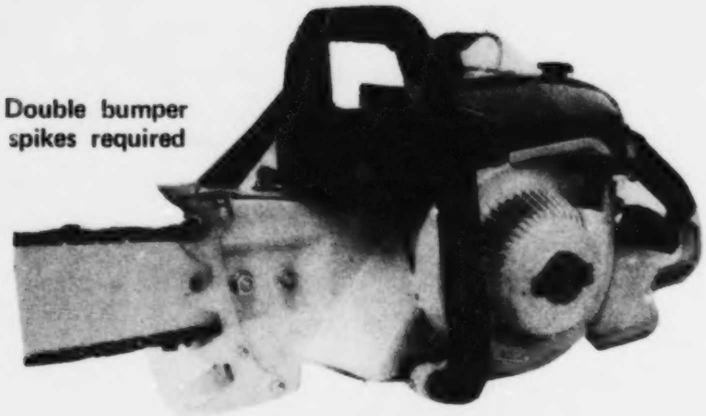
Bumper spikes required

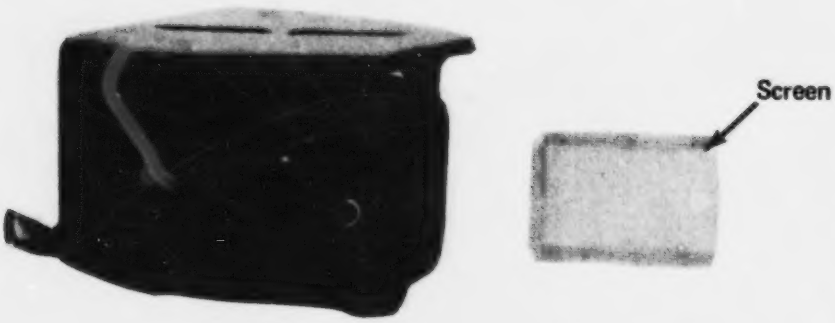


Screen

STIHL 1108-140-0605

STIHL (Continued)

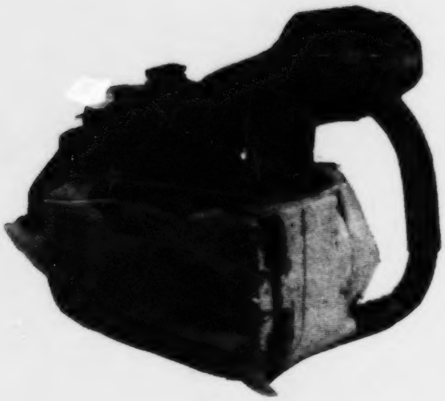

Double bumper
spikes required



ARRESTER WITH SCREEN REMOVED

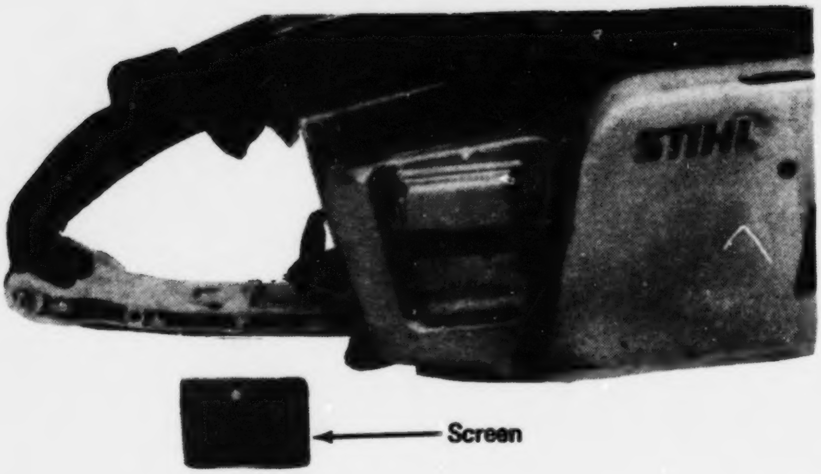
STIHL 1109-140-0603

STIHL (Continued)



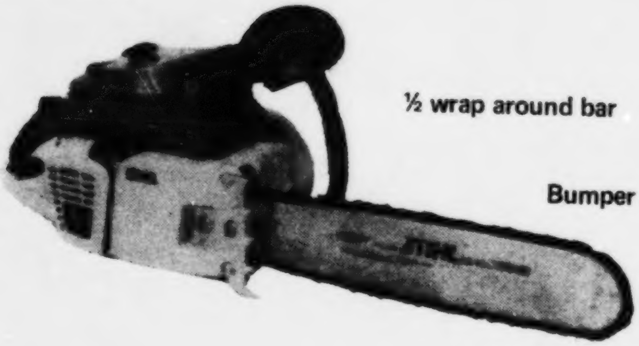
½ wrap around bar

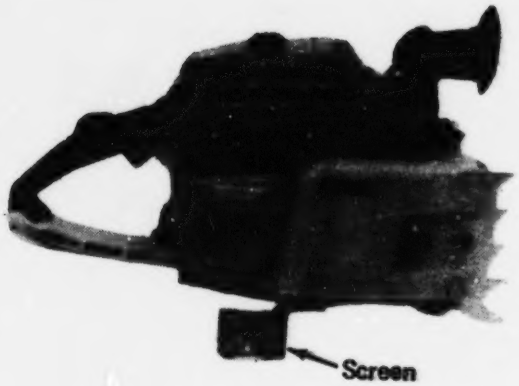
Bumper spikes optional



STIHL 1110-140-0613

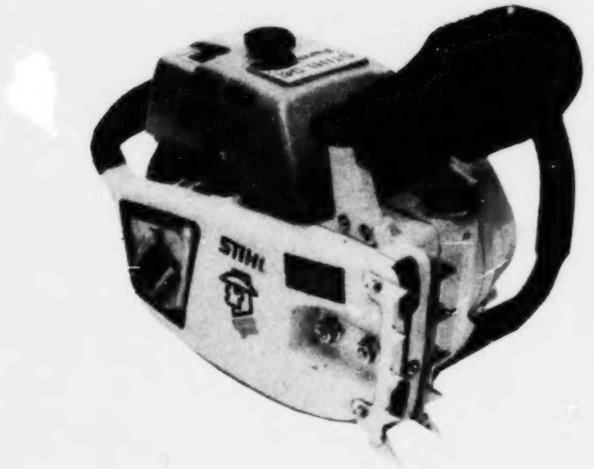
STIHL (Continued)


½ wrap around bar
Bumper spikes optional



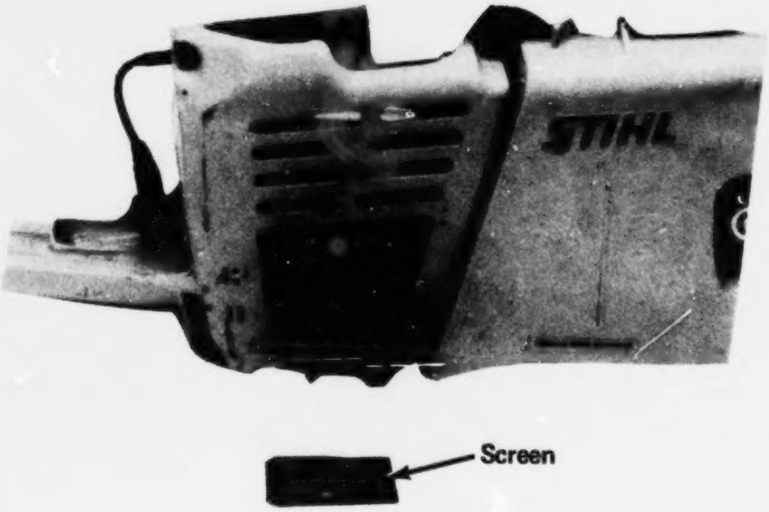
STIHL 1110-140-0614

STIHL (Continued)



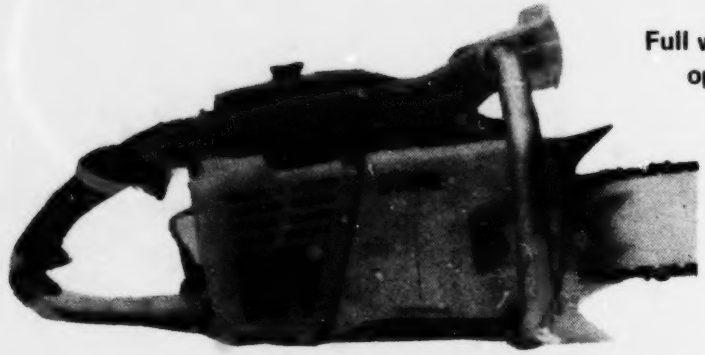
½ wrap around bar

Bumper spikes optional



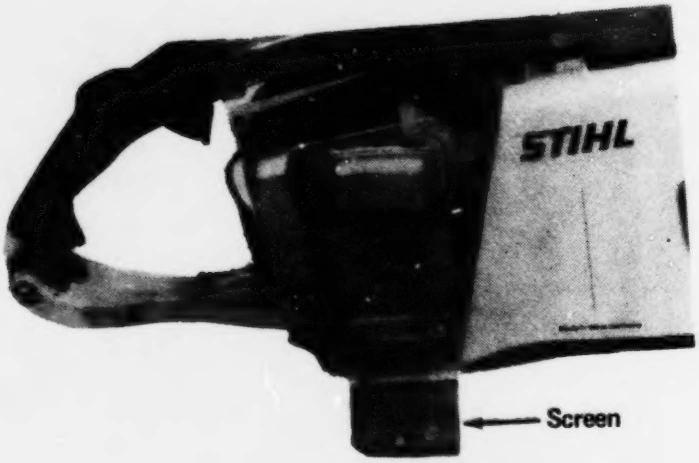
STIHL 1110-140-0615

STIHL (Continued)



Full wrap around bar optional—may be used with ½ wrap around bar

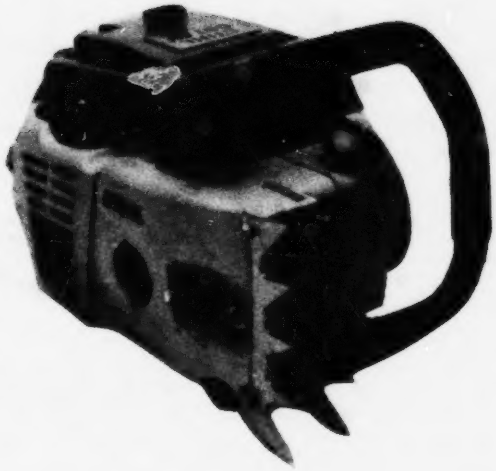
Bumper spikes optional

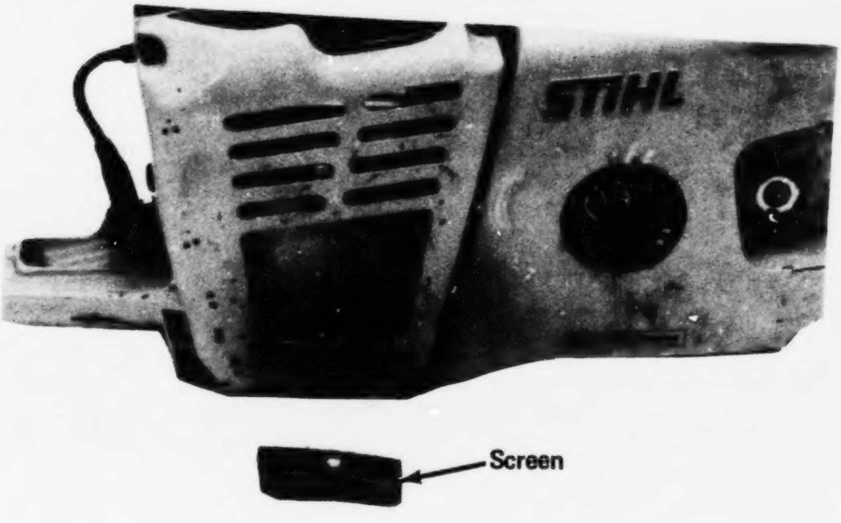


Screen

STIHL 1111-140-0604

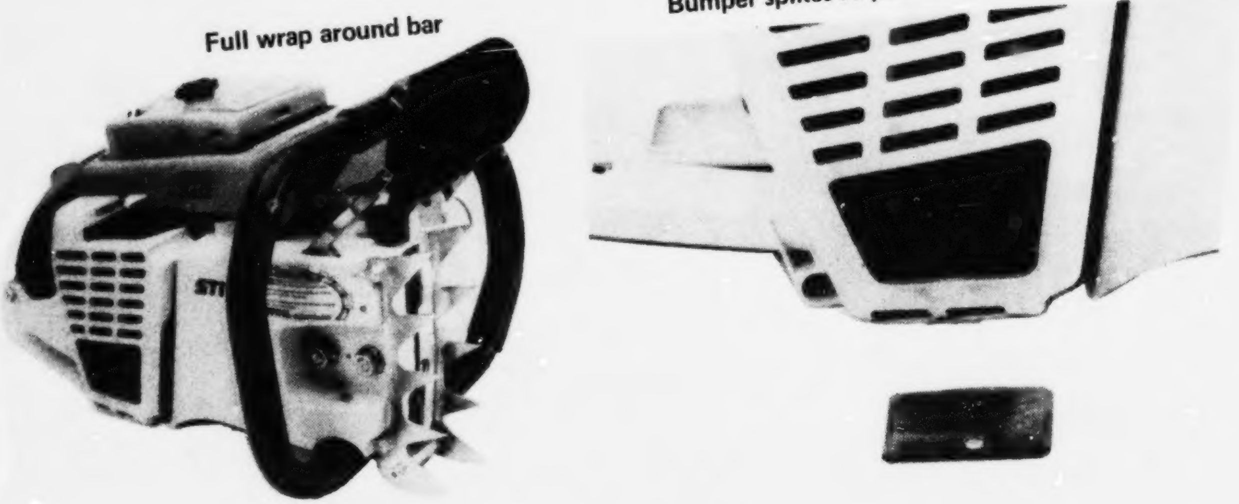
STIHL (Continued)


½ wrap around bar
Bumper spikes optional

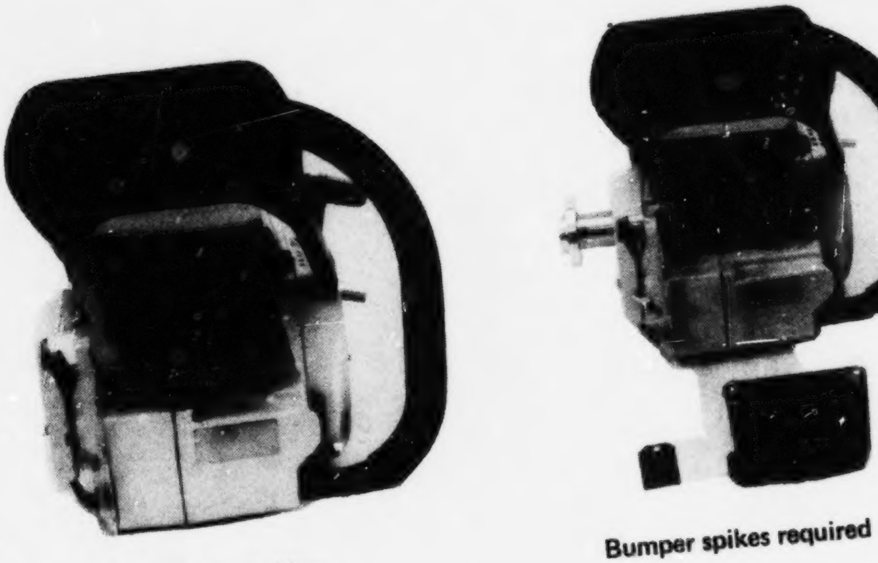

STIHL
Screen

STIHL 1111-140-0605

STIHL (Continued)

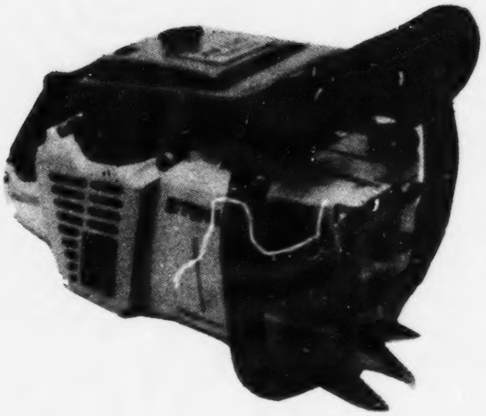

Full wrap around bar
Bumper spikes required

1111-140-0610 "d"


Bumper spikes required
½ wrap around bar

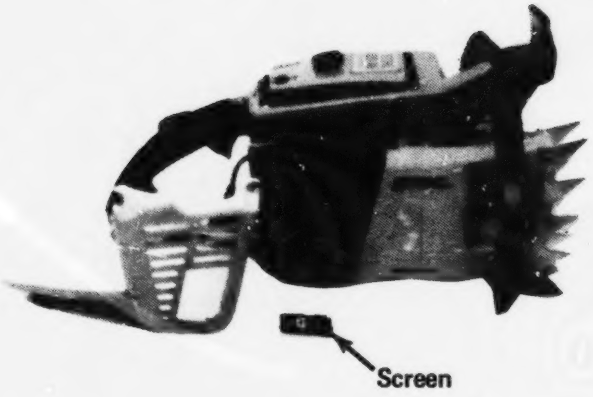
1119-140-0605 "c"

STIHL (Continued)



Full wrap around bar required

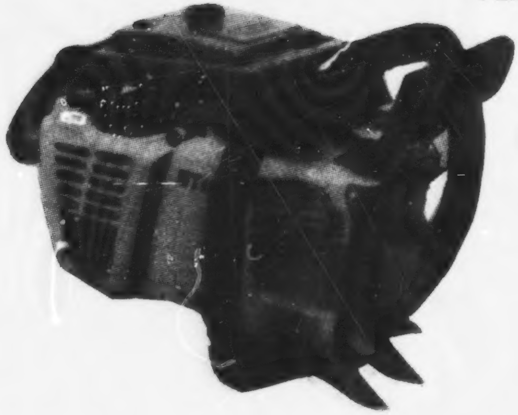
Bumper spikes optional



STIHL 1111-140-0609

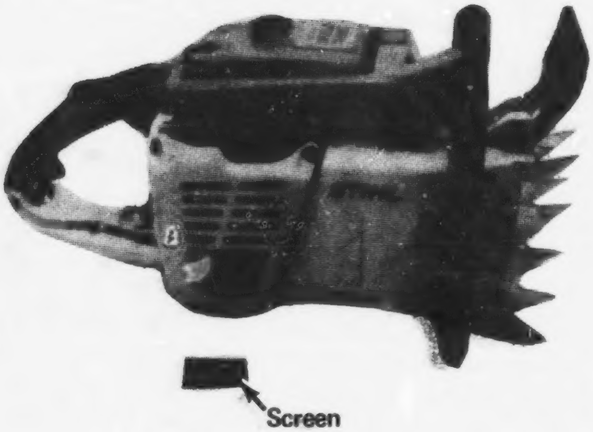
STIHL

STIHL (Continued)



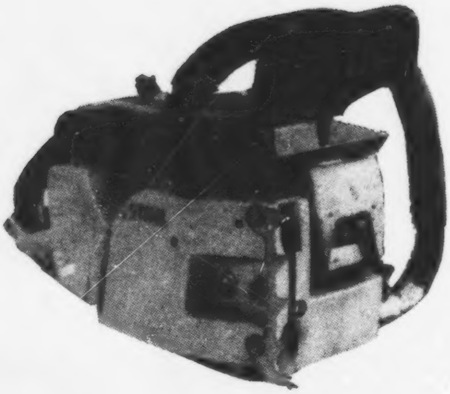
Full wrap around bar required

Bumper spikes optional



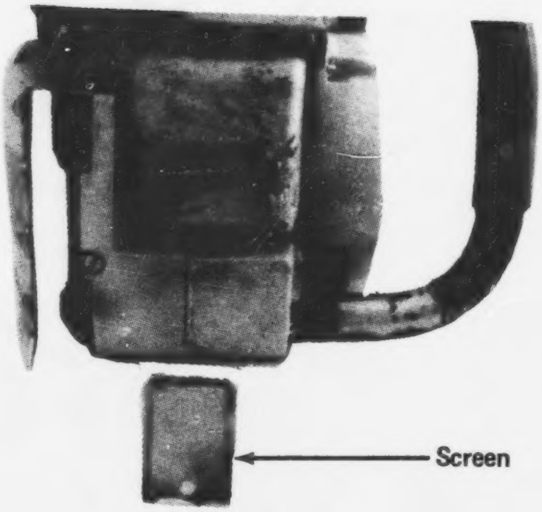
STIHL 1111-140-0610

STIHL (Continued)



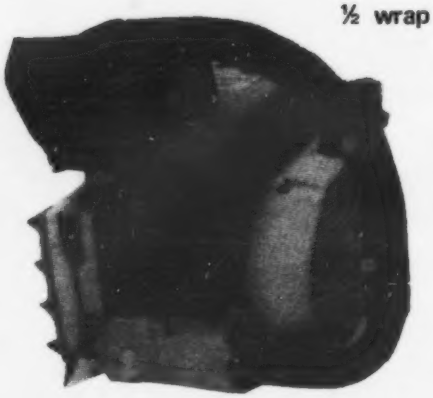
½ wrap around bar

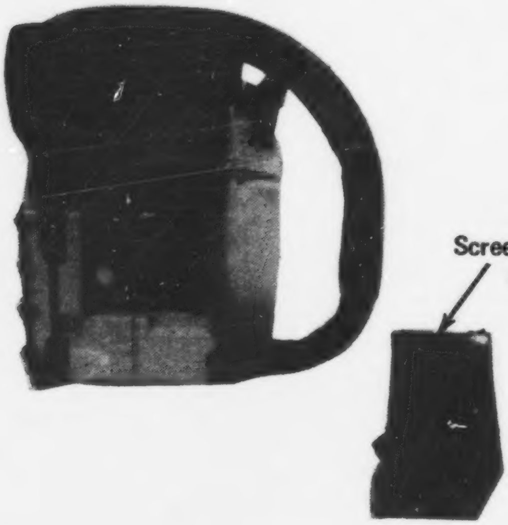
Bumper spikes required



STIHL 1113-140-0605

STIHL (Continued)


½ wrap around bar
Bumper spikes required

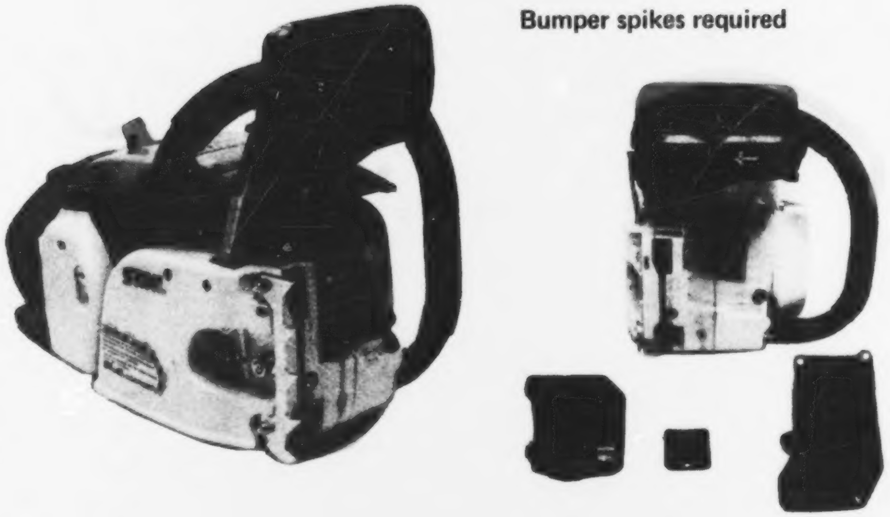

Screen held within arrester

STIHL 1113-140-0607

STIHL (Continued)

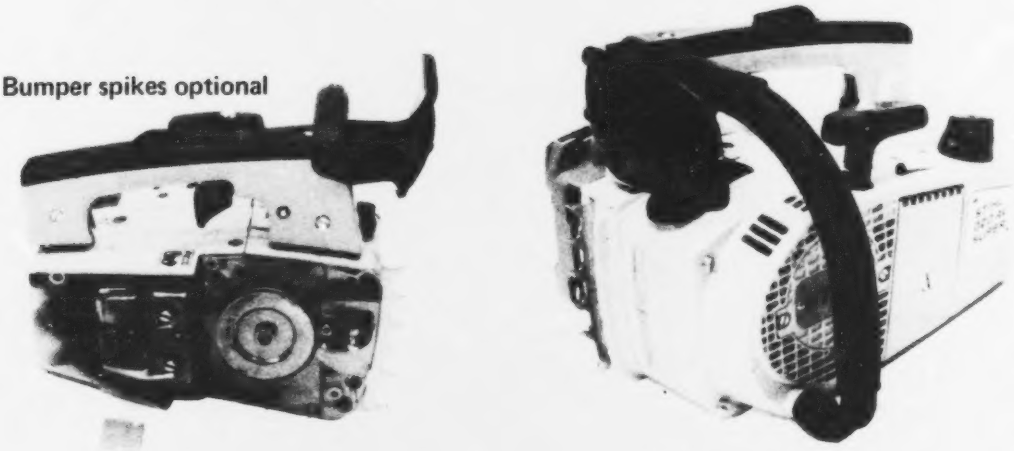
½ wrap around bar

Bumper spikes required



STIHL 1113-140-0609

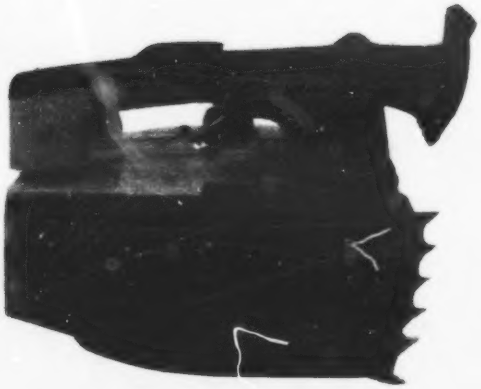
Bumper spikes optional



½ wrap around bar

1114-140-0607

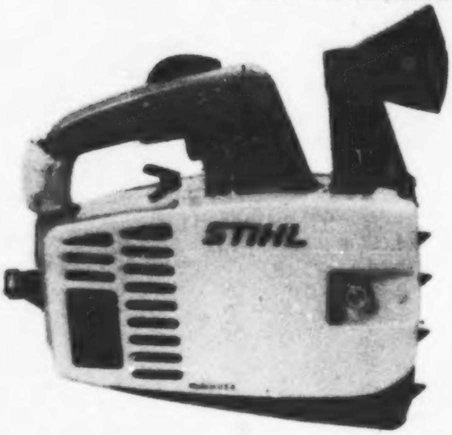
STIHL (Continued)



½ wrap around bar

Bumper spikes optional

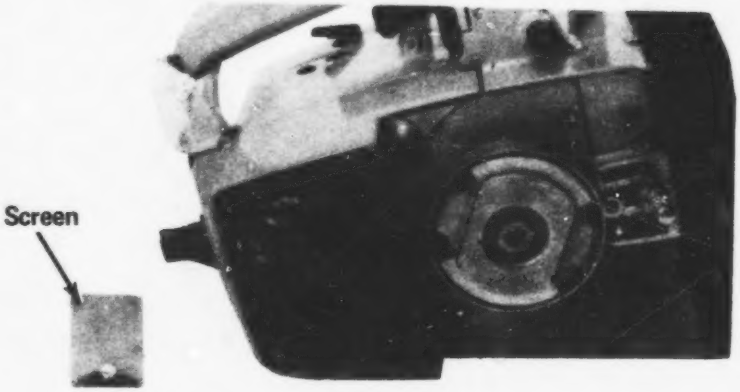
SIDE VIEW (Installed on Stihl 020 AV)



½ wrap around bar

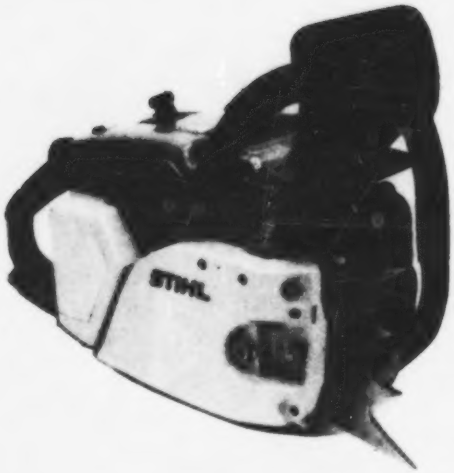
Bumper spikes optional

SIDE VIEW (Installed on Stihl 015L)



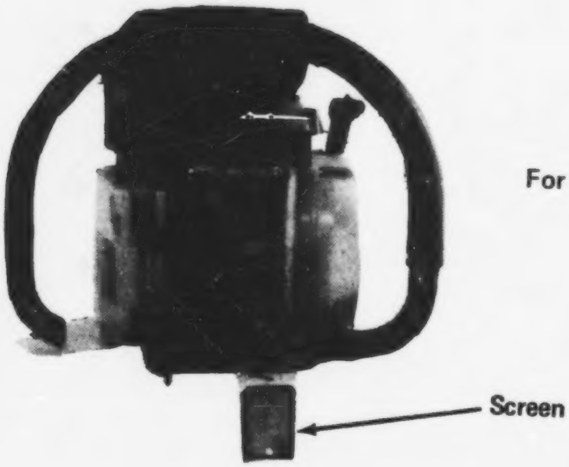
STIHL 1114-140-0607
(Installed on Stihl 015L)

STIHL (Continued)



Full wrap around bar optional

Bumper spikes required at all times. A special bumper spike, Part No. 1115-664-0501 is required when exhaust system is used on the Stihl 045 Ave Super. This bumper spike has a very shallow middle valley to limit penetration and holds exhaust gases away from cut.



For 056 Series saws:

½ wrap around bar

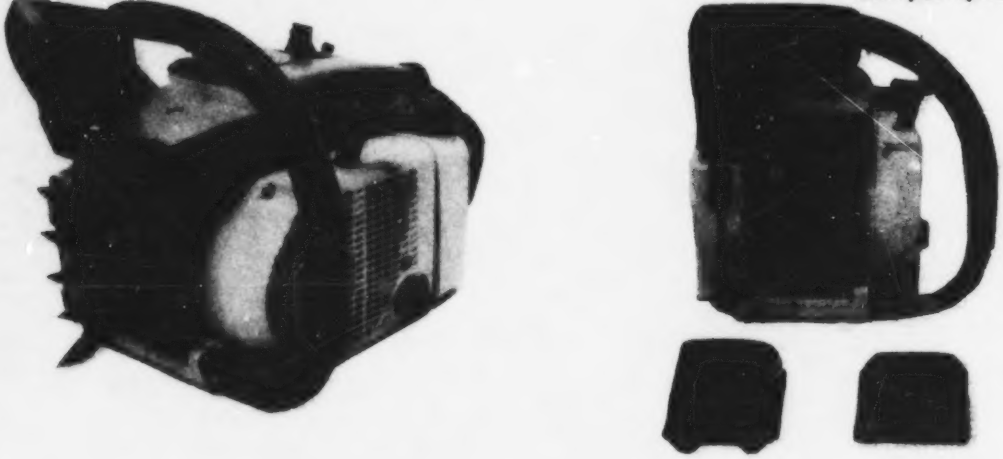
Bumper spikes required

STIHL 1115-140-0605

STIHL (Continued)

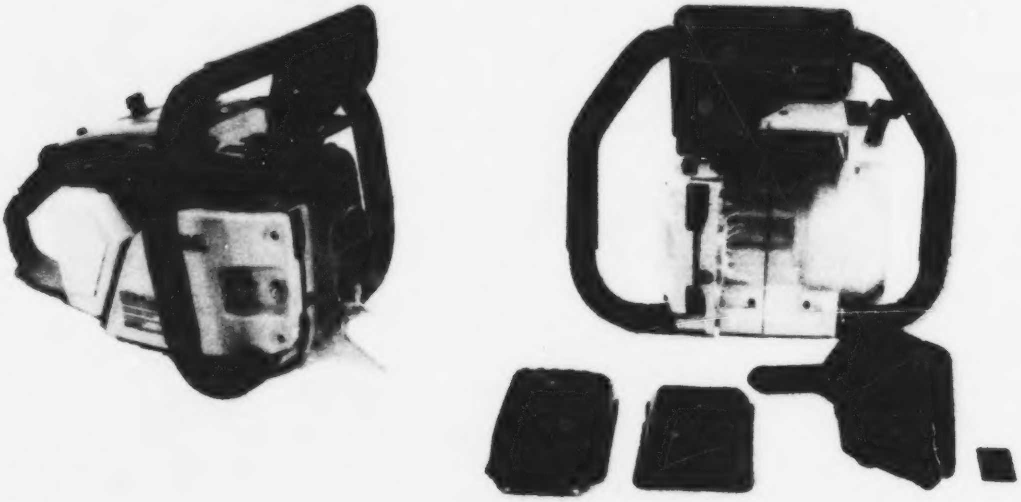
½ wrap around bar

Bumper spikes required



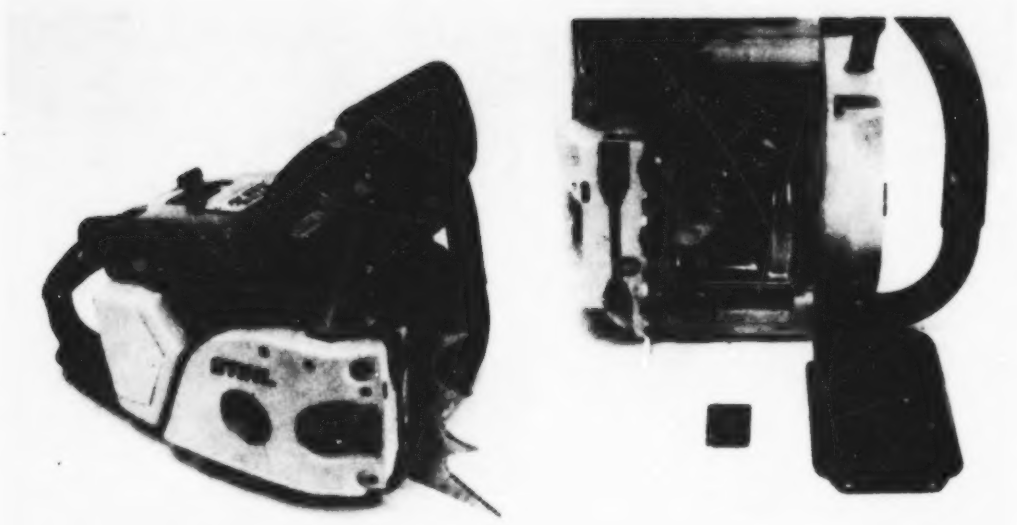
STIHL 1115-140-0606

Full or ½ wrap around bar — Bumper spikes required



STIHL 1115-140-0607

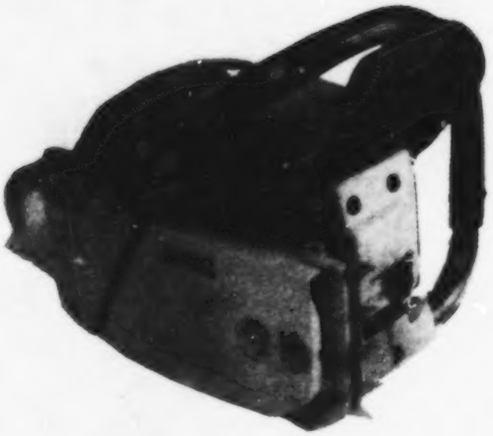
STIHL (Continued)



½ wrap around bar — Bumper spikes required

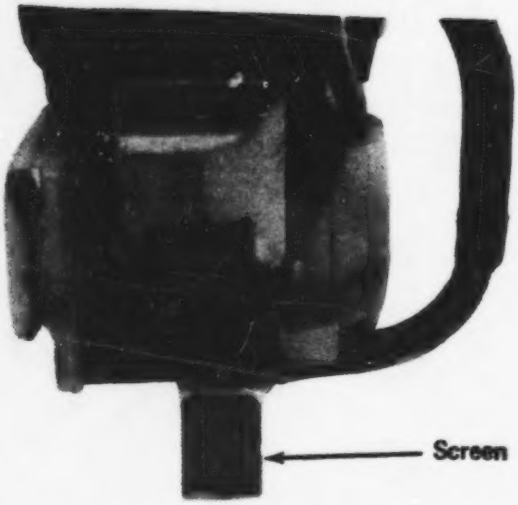
1115-140-0608

STIHL (Continued)



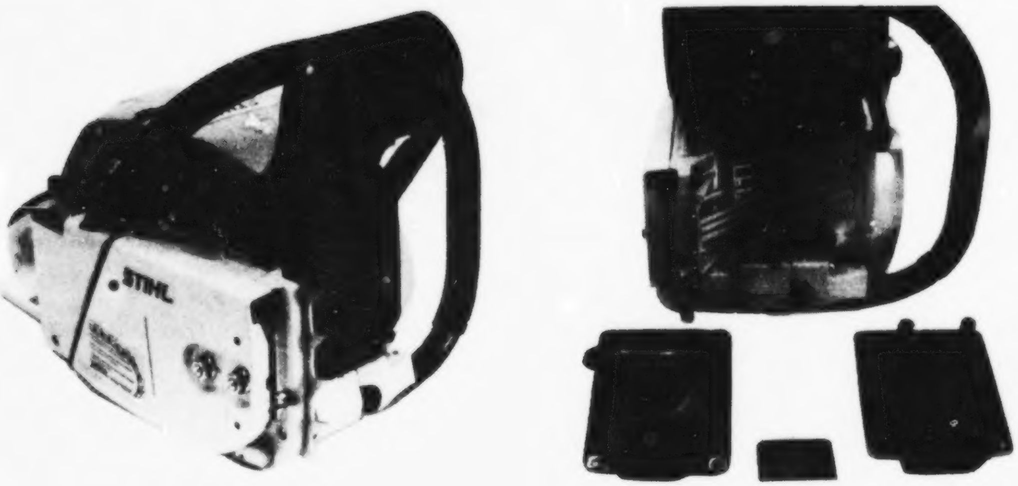
½ wrap around bar

Bumper spikes required



STIHL 1117-001-3000

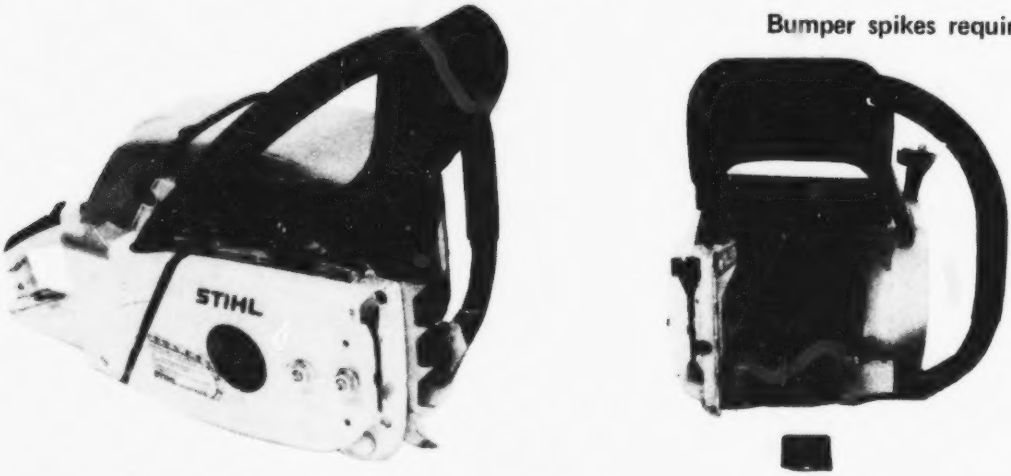
STIHL (Continued)



½ wrap around bar

Bumper spikes required

STIHL 1117-140-0603



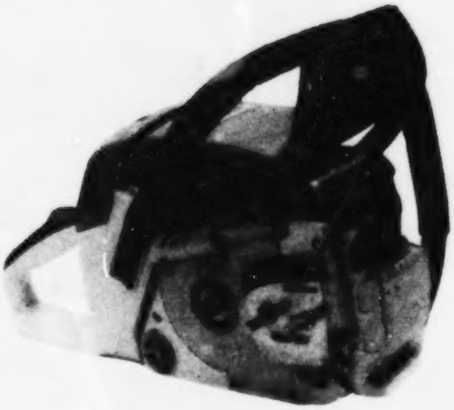
½ wrap around bar

Bumper spikes required

STIHL 1117-140-0602

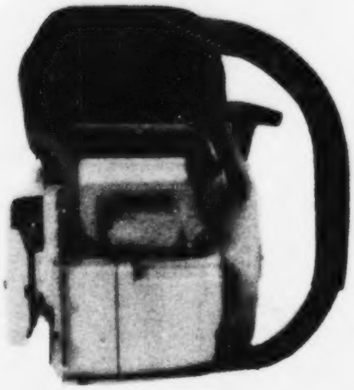
AVAILABLE

STIHL (Continued)



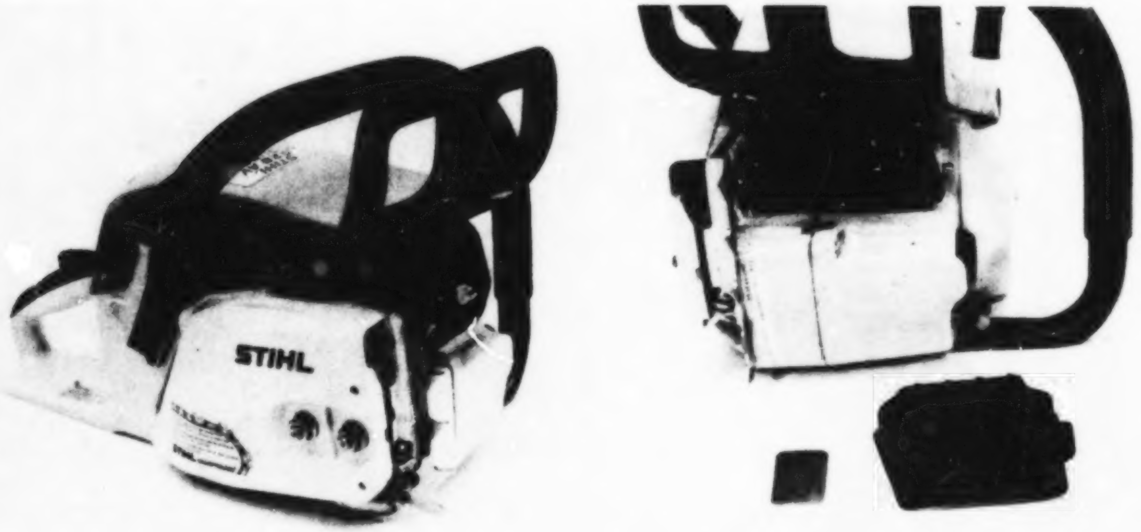
½ wrap around bar

Bumper spikes required



STIHL 1118-140-0610

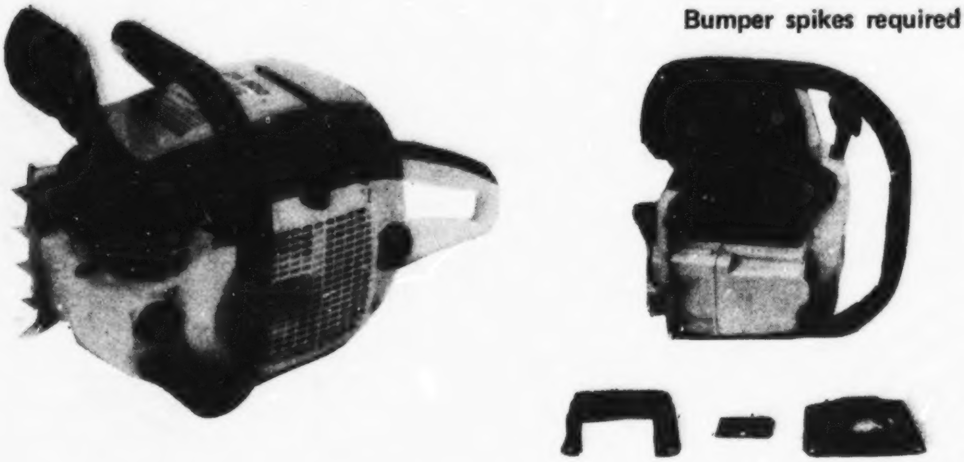
STIHL (Continued)



½ wrap around bar — Spikes required

1118-040-0611

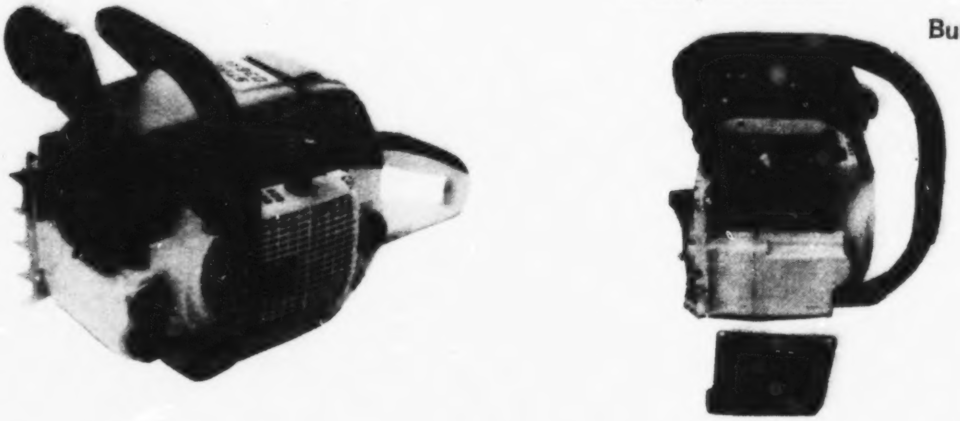
STIHL (Continued)



½ wrap around bar

Bumper spikes required

STIHL 1118-140-0601

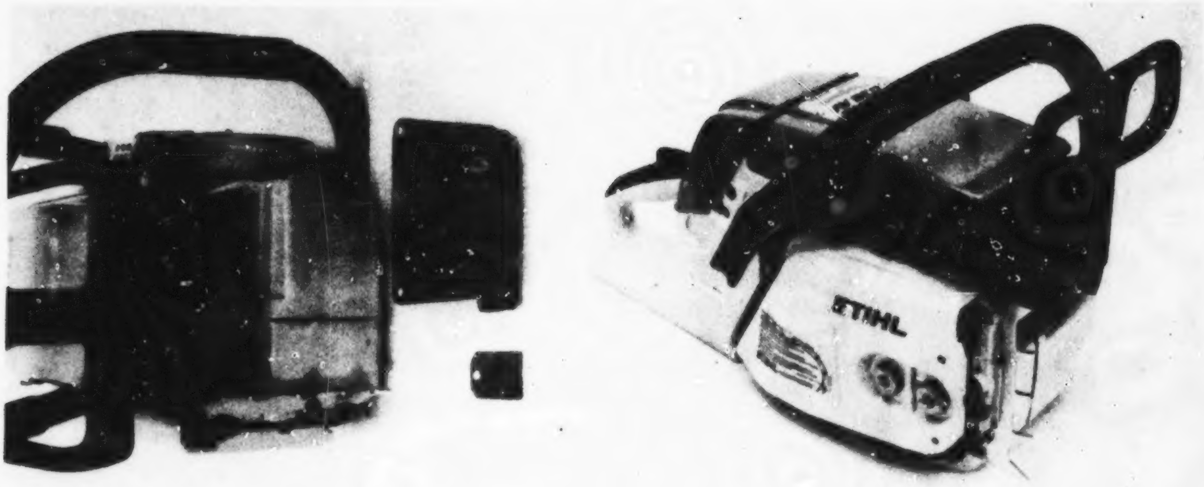


½ wrap around bar

Bumper spikes required

STIHL 1119-140-0605

STIHL (Continued)



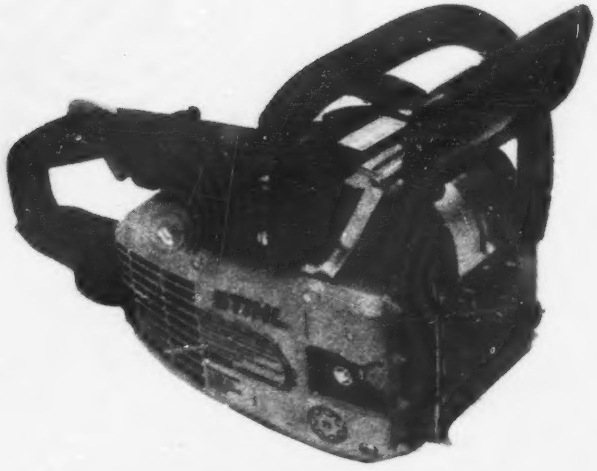
½ wrap around bar — Bumper spikes required

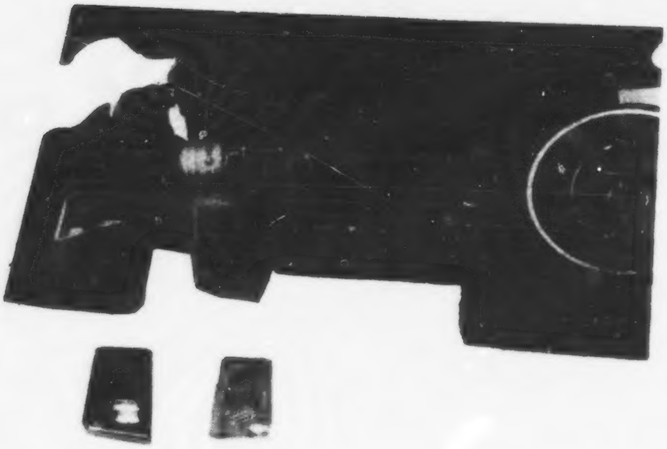
1119-140-0606

STIHL (Continued)

½ wrap around bar

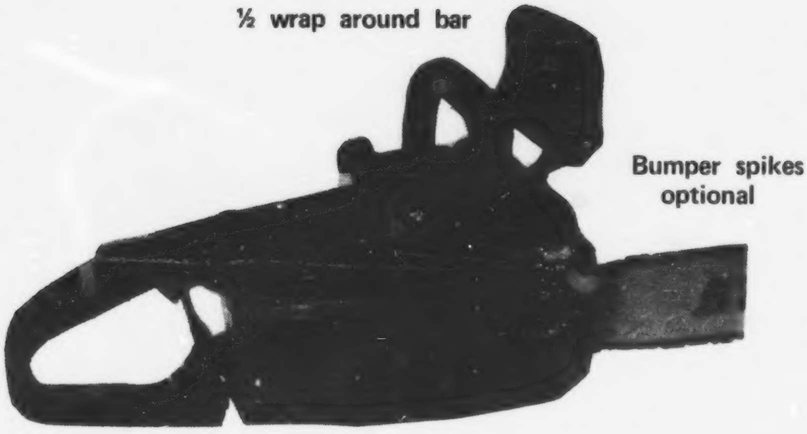
Bumper spikes optional

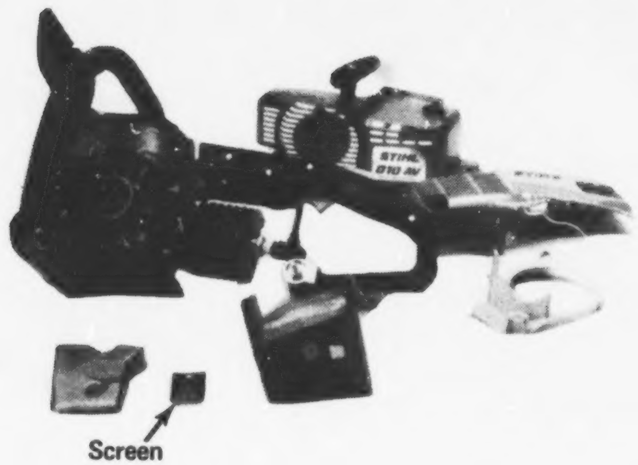




STIHL 1120-140-0600

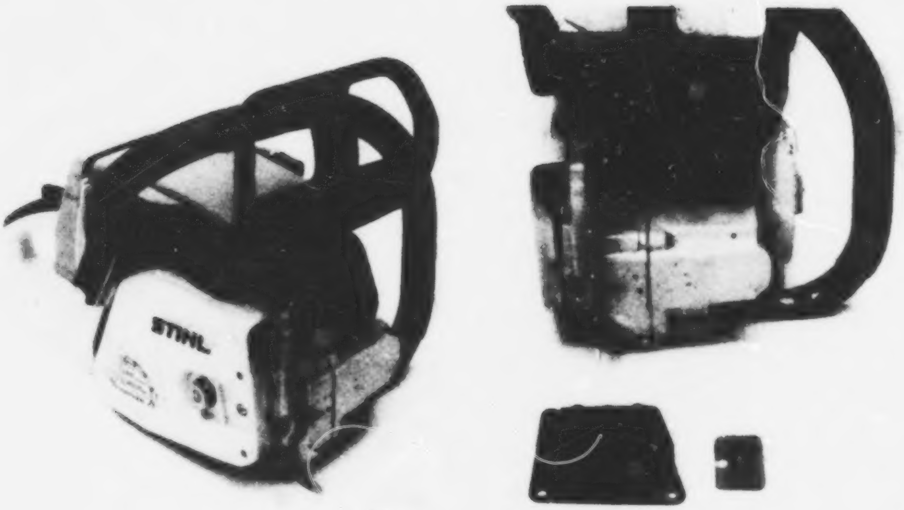
STIHL (Continued)


½ wrap around bar
Bumper spikes optional


STIHL
010 AV
Screen

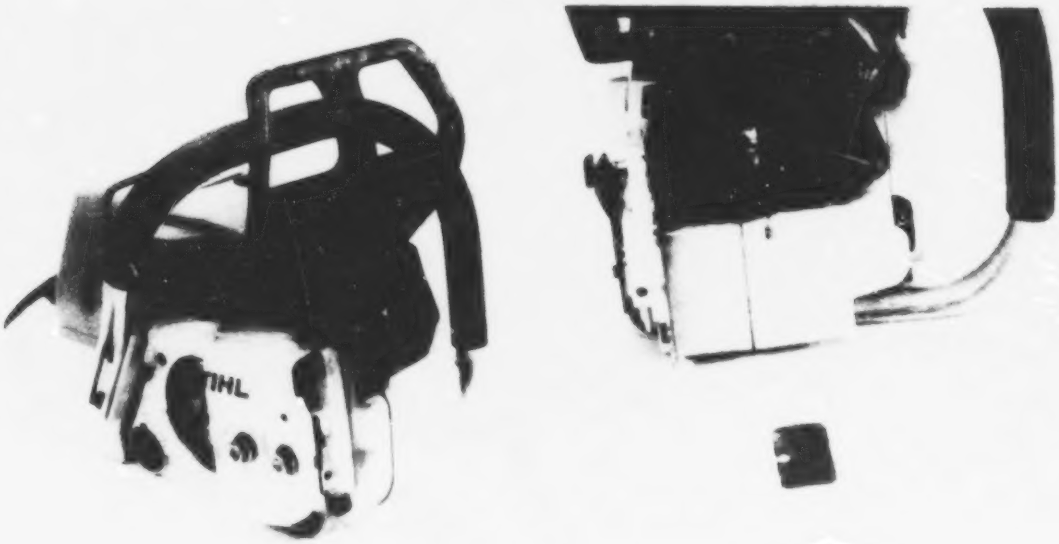
STIHL 1120-145-2800

STIHL (Continued)



½ wrap around bar — Bumper spikes required

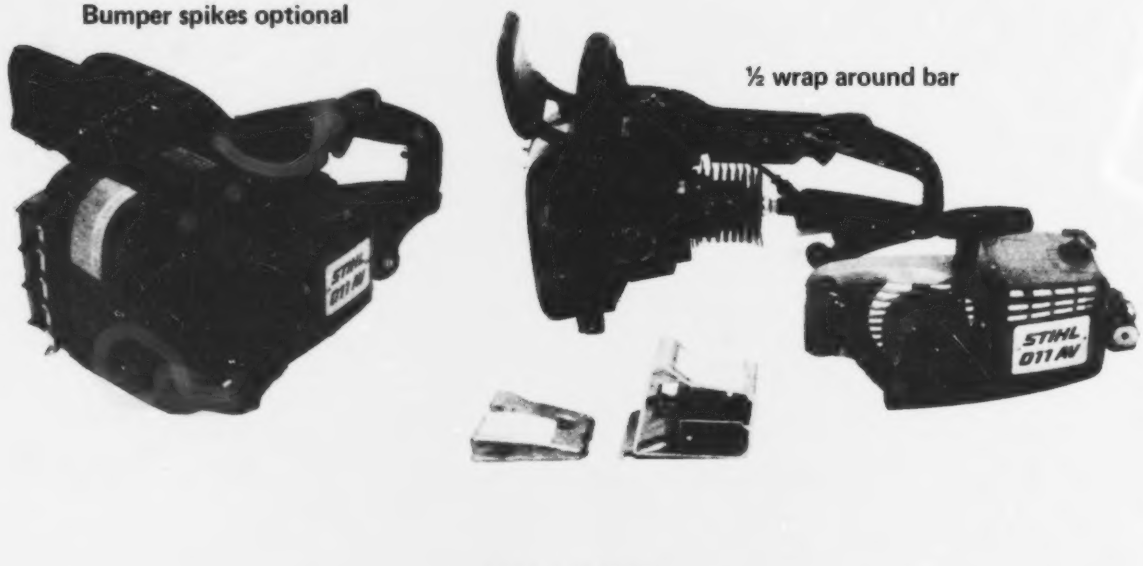
1121-140-0601



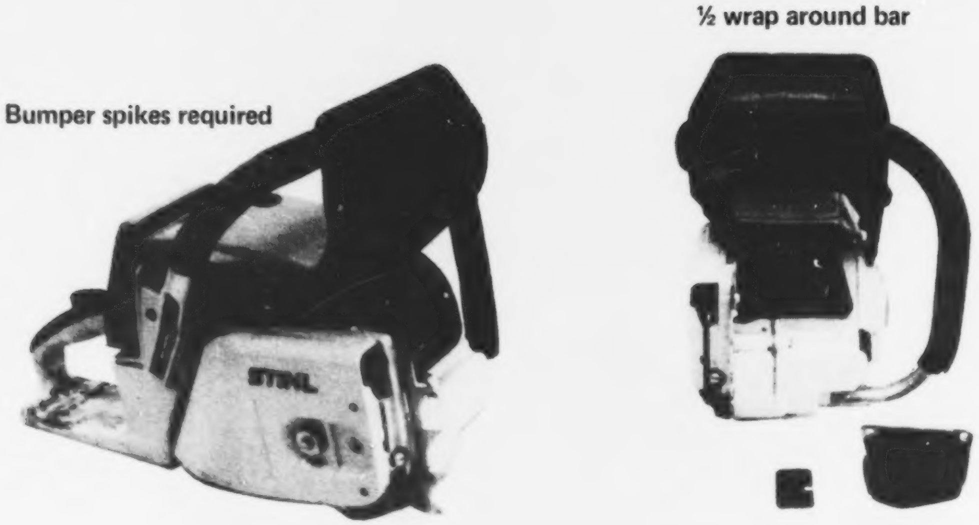
½ wrap around bar — Bumper spikes required

1125-140-0601

STIHL (Continued)


Bumper spikes optional
½ wrap around bar
STIHL 011 AV
STIHL 011 AV

1120-145-2801


½ wrap around bar
Bumper spikes required
STIHL

FIRE SAFE MUFFLER

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SPARK ARRESTER GUIDE

MULTIPOSITION SMALL SPARK ARRESTERS

–FOR UNITS MANUFACTURED PRIOR TO ENFORCEMENT DATE–

Listed below are screen-type chain saw spark arresters which do not necessarily meet requirements of SAE J335b. They have been temporarily approved based solely on the manufacturer's specifications and have not been tested by the San Dimas Equipment Development Center (SDEDC). They are for use on chain saws manufactured prior to the enforcement date for the provisions of SAE J335b. Enforcement date for provisions of SAE J335b and specific equipment to which it will apply varies from state to state. For specific enforcement details, check with fire prevention authorities in your area.

Chain Saw Models	*Screen No.*	*Other Parts & Remarks*
Beaird–Poulan, Inc.		See Poulan, p. 391
DESA Industries, Inc.		See Remington, p. 400
Homelite-AO; 2100S & 83100G	A65583	
Homelite EZ & EZAO	A65256	
Homelite XL-12; SXLAO	A63500	
Homelite XL-101, XL-102, XL-103 & XL-104	A64818	
Homelite XL-700, XL-800, XL-850, XL-901, XL-903, XL-904, XL-921, XL-923 & XL-924	A635540-A	
Homelite XL-113 & XL-114	A68074	
Homelite XP-Series (ALL)	A63518	
Homelite WIZ-series	A56086 & A65808	

HOMELITE
Riverdale & Nelson Streets, Port Chester, New York 10573

McCulloch 250, 550, 595, 660, 795, 797, 895 & 940	Kit 69332 Screen 68127	Muffler 68240
McCulloch 790, 795L, 797, 895 975 OEM & CP-125	Kit 84688	Muffler 84205
McCulloch 710, 2-10, 6-10, CP-70 G-70 & SLG-6	Kit 84922 Screen 65325	Muffler 68191

(McCULLOCH MODELS CONTINUED)

SPARK ARRESTER GUIDE

Chain Saw Models	*Screen No.*	*Other Parts & Remarks*
McCulloch 10-10 & CP-55	**Kit 85933** **Screen 83406**	**Muffler 68863**
McCulloch MM 6	**Screen 85933**	**Muffler 84992**
McCulloch PM 6	**Screen 69162 or** **Screen 85933**	**Muffler 68768 or Muffler 84992**
McCulloch SP 80	**P/N 84597**	**Muffler 84603**
McCulloch SP 125	**Kit 84688**	**Muffler 85117**

McCULLOCH CORPORATION
5401 Beethoven Street, Los Angeles, California 90066

Dealer: California McCulloch Equipment Co., 800 W. Carson, Torrance, California 90502

Mono SL-246	**390281**	**Muffler 390288**
Mono SL-249	**390272**	**Muffler 390291**

MONO MANUFACTURING COMPANY
P. O. Box 2787, Commercial Street Station, Springfield, Missouri 65803

Orline 129 "Mustang, Jr."	**200078**	
Orline 149 "Mustang"	**200078**	

O & R ENGINES, INC.
3340 Emery Street, Los Angeles, California 90023

Pioneer 620, Super 620 & 650	**471859**	**None, replaces existing screen plate 470787**
Pioneer 750, 850, 1750, 1850	**471861**	**Kit 473565 replaces existing crimped-type muffler 471860:** **471297 Body & Brace Ass'y 1** **471861 Baffle Plates & Screen 1** **427606 Spacer 2** **429678 Spacer 1** **429676 Cover 1** **306396 Lockwasher 1** **303459 Screw 1**

(PIONEER MODELS CONTINUED)

SPARK ARRESTER GUIDE

Chain Saw Models	*Screen No.*	*Other Parts & Remarks*
Pioneer 3200, 3270, 2400, 2460, 1420, 1450, 1410, 2200, 2270, 1130, 1160, 1120, 1150, 1110, 1560 & 1570	471580	For some models, only existing baffle plate 427796 need be replaced, for others, the following parts are required: 428189 Gasket 1 471610 Muffler Body Ass'y 1 427797 Muffler Cover 1 428188 Stud 2 305230 Screw 2 471580 Baffle Plate & Screen 1 N.B.—Muffler body 471641 cannot be used with screen 471580 because of open hole next cycle.
Pioneer 970	473523	Kit 473528 replaces existing muffler 473172 429593 Muffler Body 1 473523 Baffle Plate Ass'y 1 429568 Muffler Cover 1 307193 Screw 3
Pioneer 550, 450, NU-17, 420, 410, 400A, 400	428687	None replacing existing screen 426742

PIONEER SAWS LTD.
Peterborough, Ontario, CANADA

Poulan 306 automatic, 306 super auto, Wright model 100 blade saw	23292*	
Poulan Super 33, 53 Automatic, 54, Super 68, 71 Automatic, 72	23249**	10091 complete optional spark arrester muffler
Poulan 92	23251**	
Poulan 245 Automatic, 252 Automatic	23191**	

*Saws with spark arrester muffler as standard equipment.

**Saws for which spark arrester screen or muffler is available as optional equipment.

BEAIRD POULAN, INC.
5322 Greenwood Road, (P. O. Box 9329), Shreveport, Louisiana 71109

Remington PL-4	64580
Remington PL-55, PL-55A, PL-7 & PL-7A	64664

(REMINGTON MODELS CONTINUED)

SPARK ARRESTER GUIDE

Chain Saw Model	Screen No.	Other Parts & Remarks
Remington SL-9	65340	Muffler and Screen Assembly
Remington SL-10 & SL-10A	66375	Plus 66379 Plate
Remington SL-11 & SL-11A	66370	

REMINGTON CHAIN SAWS
DESA Industries, Inc., Power Products Division
25000 S. Western Avenue, Park Forest, Illinois 60466

Sears 35072 (17"–"Woodcutter")	Available	Stock-type spark arrester
Sears 35108 (17"–"Sportster")	Available	Low-tone box-type
Sears 35109 (21"–"Sportster")	Available	Low-tone box-type
Sears 35118 (17"–"Ranger")	Available	Low-tone box-type
Sears 35119 (21"–"Ranger")	Available	Low-tone box-type
Sears 35138 (17"–"Power Sharp")	Available	Low-tone box-type
Sears 35139 (21"–"Power Sharp")	Available	Low-tone box-type

SEARS, ROEBUCK & COMPANY
Pacific Coast Buying Office
2650 East Olympic Blvd., Los Angeles, California 90054

Stihl 050 & 090	1106-140-0504	Louver: 1106-145-2900 Screws: 1106-140-0503

STIHL, INC.
536 Viking Drive, Virginia Beach, Virginia 23452

Wright Chain Saw		See Poulan, p. 391

CHAIN SAW EXHAUST SYSTEMS

* * * * * * *

LISTED ON THE FOLLOWING PAGES ARE CHAIN SAW EXHAUST SYSTEMS WHICH HAVE BEEN QUALIFIED IN ACCORDANCE WITH RECOMMENDED PRACTICE SAE J335b, "MULTIPOSITION SMALL ENGINE EXHAUST SYSTEM FIRE IGNITION SUPPRESSION.

ENFORCEMENT DATE FOR PROVISIONS OF SAE J335b AND SPECIFIC EQUIPMENT TO WHICH IT WILL APPLY VARIES FROM STATE TO STATE. FOR SPECIFIC ENFORCEMENT DETAILS CHECK WITH FIRE PREVENTION AUTHORITIES IN YOUR AREA.

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SPARK ARRESTER GUIDE

CHAIN SAW EXHAUST SYSTEMS QUALIFIED UNDER SAE J335b

ECHO-KIORITZ CORP. OF AMERICA

3150 MacArthur Boulevard
Northbrook, Illinois 60062

Chain Saw Exhaust System	*Chain Saws*
ECHO CS 302	ECHO CS 302 JOHN DEERE 30
ECHO CS 315 ECHO 10130	ECHO CS 315 ECHO CS 452 VL JOHN DEERE 50V
ECHO 10230	ECHO CS 702 VL ECHO CS 602 VL ECHO CS 750 EVL JOHN DEERE 60V JOHN DEERE 70V JOHN DEERE JD 80 EV
ECHO 10530	ECHO CS 351 VL JOHN DEERE 40V
ECHO 12330	ECHO CS-500 VL
ECHO 14330	ECHO CS 650 EVL JOHN DEERE JD 65 EV
ECHO 14530	ECHO CS 400 EVL JOHN DEERE JD 45 EV
ECHO 14730	ECHO CS 900 EVL
KIORITZ 13930	ECHO CS 280 F ECHO CS 290 EVL JOHN DEERE JD 25 EV

FRONTIER–TRAIL MANUFACTURING LTD.

P. O. Box 491
Trail, B.C., Canada V1R 4L7

Chain Saw Exhaust System	*Chain Saws*
TRAIL MFG., LTD. Part No. 100562	DOLMAR D JR 34-HS DOLMAR D JR 34-AV-HS
	FRONTIER MKI-HS FRONTIER MKI VIP-HS FRONTIER F-35-HS FRONTIER FB-35-HS FRONTIER F-35 VIP-HS FRONTIER FB-35 VIP-HS
	JONSEREDS 361-HS JONSEREDS 361-AV-HS

(FRONTIER MODELS CONTINUED)

FRONTIER *(Continued)*

Chain Saw Exhaust Systems	*Chain Saws*
TRAIL MFG., LTD. Part No. 100562	PIONEER MODEL P12-HS SPARTAN 34-HS SPARTAN 34-AV-HS

HMC INTERNATIONAL

20710 S. Alameda Street
Long Beach, CA 90810

Chain Saw Exhaust System	*Chain Saws*
HMC 7400	KOMATSU-ZENOAH/HMC 7200 KOMATSU-ZENOAH/HMC 7400
HMC 7600/7700	KOMATSU-ZENOAH/HMC 7600 KOMATSU-ZENOAH/HMC 7700

HOMELITE–HOMELITE TEXTRON

P. O. Box 7047
14401 Carowinds Boulevard
Charlotte, North Carolina 28217

Chain Saw Exhaust System	*Chain Saws*
HOMELITE 360W PT A-70781-1	HOMELITE 360W CRAFTSMAN 3.5/10" M 358510
HOMELITE 450W UT 10441	HOMELITE 450W CRAFTSMAN 4.5/23" M 358710 *(When equipped with wrap-around handle, Sears, Part No. 368/4)*
HOMELITE 550W UT 10498	HOMELITE 550W
HOMELITE S650 UT 10461	HOMELITE S650
HOMELITE 750	HOMELITE 750
HOMELITE RUDY -6	HOMELITE XL-AO HOMELITE SXL-AO
HOMELITE RUDY -7	HOMELITE SXL-AO HOMELITE XL-12
HOMELITE SUPER EZ-W	HOMELITE SUPER EZ-W
HOMELITE SUPER XL-AO	HOMELITE SUPER XL-AO HOMELITE XL 12

(HOMELITE MODELS CONTINUED)

HOMELITE *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
HOMELITE VI SUPER 2	HOMELITE VI SUPER 2 HOMELITE SUPER 2 HOMELITE XL 2 HOMELITE XL 2S HOMELITE XL
HOMELITE SXL 925W	HOMELITE SXL 925
HOMELITE MOD A94212	HOMELITE SUPER XL-AO HOMELITE MOD XL 12
HOMELITE MOD A94068B	HOMELITE 150
HOMELITE MOD A94515	HOMELITE SEZ-W
HOMELITE MOD A94780	HOMELITE 360-W
HOMELITE MOD A95305B	HOMELITE SUPER EZ
HOMELITE MOD A95414	HOMELITE XL 12 HOMELITE SXL-AO
HOMELITE MOD A96069	HOMELITE 330
HOMELITE MOD A96456	HOMELITE 330
HOMELITE MOD A96489	HOMELITE 410
HOMELITE MOD A96931	HOMELITE 240 HOMELITE 245

HUSQVARNA–HUSQVARNA INC.
224 Thorndale Avenue
Bensenville, Illinois 60160

Chain Saw Exhaust System	*Chain Saws*
HUSQVARNA MOD 3	HUSQVARNA 234 SE/SG
HUSQVARNA 4	HUSQVARNA 44 HUSQVARNA 234 SE/SG
HUSQVARNA 5	HUSQVARNA 154 SE/SG
HUSQVARNA MOD 6	HUSQVARNA 266 SE/SG HUSQVARNA 61 RANCHER HUSQVARNA 266 SE/SG *(with K&N air filter)*
HUSQVARNA MOD 8	HUSQVARNA 181 SE/SG HUSQVARNA 181 SE/SG *(with K&N air filter)*

(HUSQVARNA MODELS CONTINUED)

SPARK ARRESTER GUIDE

HUSQVARNA *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
HUSQVARNA 40	HUSQVARNA 240 SE
	HUSQVARNA 240 S PRACTICA
	HUSQVARNA 240 SG
	HUSQVARNA 340 SE
	HUSQVARNA 340 SG
	HUSQVARNA 40
	HUSQVARNA 44
HUSQVARNA 50 RANCHER	HUSQVARNA 50 RANCHER
HUSQVARNA 62	HUSQVARNA 61
	HUSQVARNA 61 RANCHER
	HUSQVARNA 162 SE
	HUSQVARNA 162 SE/SG
	HUSQVARNA 162 SG
	HUSQVARNA 266 SE/SG
HUSQVARNA 65FF	HUSQVARNA L65
HUSQVARNA MCD 65/77	HUSQVARNA L65
HUSQVARNA 80	HUSQVARNA 380 CD
	HUSQVARNA 380 S
	HUSQVARNA 480 CD
HUSQVARNA 85/100	HUSQVARNA 2100 CD
	HUSQVARNA 2100 CD *(with K&N air filter)*
	HUSQVARNA 285 CD
HUSQVARNA 480FF	HUSQVARNA 480 CD
	HUSQVARNA 480 CD *(with K&N air filter)*

NOTE: See SKIL Section for other HUSQVARNA chain saws.

JONSEREDS–SCOTS COMPANY, INC.
9180 South East 74th Avenue
Portland, Oregon 97206

Chain Saw Exhaust System	*Chain Saws*
JONSEREDS J45-49-52	JONSEREDS 45
	JONSEREDS 45 ES
	JONSEREDS 45 EVS
	JONSEREDS 49 SP

(JONSERED MODELS CONTINUED)

JONSEREDS *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
JONSEREDS J45-49-52	JONSEREDS 52
	JONSEREDS 52 E
	JONSEREDS 52 ES
	JONSEREDS 52 P
	JONSEREDS 451
	JONSEREDS 451 ES
	JONSEREDS 451 EVS
	JONSEREDS 452
	JONSEREDS 452 ES
	JONSEREDS 452 EVS
	JONSEREDS 452 F
	JONSEREDS 521 EVS
JONSEREDS 50-15-953	JONSEREDS 630/630V
JONSEREDS 80-90	JONSEREDS M66 E
	JONSEREDS M66 ES
	JONSEREDS M70 E
	JONSEREDS M70 ES
	JONSEREDS M80
	JONSEREDS M81
	JONSEREDS M90
	JONSEREDS M801
JONSEREDS M90	JONSEREDS M66 E
	JONSEREDS M66 ES
	JONSEREDS M70 E
	JONSEREDS M70 ES
	JONSEREDS M80
	JONSEREDS M81
	JONSEREDS M90
	JONSEREDS M801
JONSEREDS 510SP	JONSEREDS 510SP
	JONSEREDS 520SP
JONSEREDS 520SP	JONSEREDS 520SP
JONSEREDS 525	JONSEREDS 450
	JONSEREDS 525
JONSEREDS 910E	JONSEREDS 910E
JONSEREDS 920	JONSEREDS 920

KRIZMAN ENGINEERING & SALES COMPANY–KESCO
127 Gale Hill
Lindsay, California 93247

Chain Saw Exhaust System	*Chain Saws*
KRIZMAN CS-250	HUSQVARNA 65
	HUSQVARNA 77
	HUSQVARNA 285
	HUSQVARNA 380 CD
	HUSQVARNA 380 S
	HUSQVARNA 480 CD
	HUSQVARNA 2100 CD

McCULLOCH–McCULLOCH CORPORATION
5401 Beethoven Street
Los Angeles, California 90066

Chain Saw Exhaust System	*Chain Saws*
McCULLOCH MAC 130	McCULLOCH MAC 110
	McCULLOCH MAC 120
	McCULLOCH MAC 130
	McCULLOCH SUPER MAC 210
	McCULLOCH SUPER MAC 220
	McCULLOCH SUPER MAC 230
McCULLOCH MAC 130A	McCULLOCH MAC 110
	McCULLOCH MAC 115
	McCULLOCH MAC 120
	McCULLOCH MAC 130
	McCULLOCH SUPER MAC 210
	McCULLOCH SUPER MAC 220
	McCULLOCH SUPER MAC 230
	MONTGOMERY WARD TMY 24062B
	MONTGOMERY WARD TMY 24064B
McCULLOCH MAC 140	McCULLOCH MAC 140
	McCULLOCH SUPER MAC 240
McCULLOCH MAC 140A	McCULLOCH MAC 140
	McCULLOCH SUPER MAC 240
	MONTGOMERY WARDS TMY 24069A

(McCULLOCH MODELS CONTINUED)

McCULLOCH *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
McCULLOCH MAC 250/260	McCULLOCH MAC 250
	McCULLOCH MAC 260
McCULLOCH PM 310	McCULLOCH PM 310
	McCULLOCH PM 320
	McCULLOCH PM 330
	McCULLOCH PM 340
	MONTGOMERY WARDS TMY 24071A
	MONTGOMERY WARDS TMY 24069C
McCULLOCH PM 510	McCULLOCH PM 510
McCULLOCH PM 510A	McCULLOCH PM 510
	McCULLOCH PRO MAC 515
	MONTGOMERY WARDS TMY 24078B
McCULLOCH PM 555	McCULLOCH PM 10-10
	McCULLOCH PM 555
McCULLOCH PM 570	McCULLOCH PM 570
McCULLOCH PM 650	McCULLOCH PM 610
	McCULLOCH PM 650
	McCULLOCH PM 690
	McCULLOCH PRO MAC 655
	MONTGOMERY WARDS TMY 24083A
	MONTGOMERY WARDS TMY 24084B
	MONTGOMERY WARDS TMY 24086B
	MONTGOMERY WARDS TMY 24088A
McCULLOCH PM 700	McCULLOCH PM 700
	McCULLOCH PRO MAC 700
McCULLOCH PM 800	McCULLOCH PM 800
	McCULLOCH PRO MAC 805
McCULLOCH PM 850	McCULLOCH PM 850
McCULLOCH PM 1000	McCULLOCH PM 1000
McCULLOCH PRO MAC 10-10S	McCULLOCH PRO MAC 10-10S
McCULLOCH PRO MAC 155	McCULLOCH PRO MAC 155
	McCULLOCH PRO MAC 165
McCULLOCH PRO MAC 355	McCULLOCH PRO MAC 355
	McCULLOCH PRO MAC 365
	McCULLOCH PRO MAC 375
McCULLOCH SP 125C	McCULLOCH SP 125C

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OLYMPIC–SCOTS COMPANY, INC.
9180 South East 74th Avenue
Portland, Oregon 97206

Chain Saw Exhaust System	*Chain Saws*
OLYMPIC 460	OLYMPIC 250AS OLYMPIC 251 OLYMPIC 251S OLYMPIC 254 OLYMPIC 254F OLYMPIC 261 OLYMPIC 261A OLYMPIC 460 AS OLYMPIC 460S

PARTNER–DIVISION OF TECFOR
224 Thorndale Avenue
Bensenville, Illinois 60160

Chain Saw Exhaust System	*Chain Saws*
PARTNER 4	PARTNER 400
PARTNER 350390	PARTNER P55 PARTNER P70 PARTNER R420 PARTNER R420T PARTNER R421T PARTNER R517 PARTNER R517T PARTNER 7000 PLUS
PARTNER FARMER F65	PARTNER FARMER F55 PARTNER FARMER F55A PARTNER FARMER F65 PARTNER S50 PARTNER S55 PARTNER S65
PARTNER P100	PARTNER P85 PARTNER P100
PARTNER P5000	PARTNER P5000 JONSEREDS 490
PARTNER R420	PARTNER 517 PARTNER 517T

(PARTNER MODELS CONTINUED)

PARTNER *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
PARTNER R420	PARTNER P55
	PARTNER R420
	PARTNER R420T
	PARTNER R421T

NOTE: See SKIL Section for other PARTNER chain saws.

PIONEER CHAIN SAW CORP., INC.
775 Neal Drive
Peterborough, Ontario, Canada K9J 6X7

Chain Saw Exhaust System	*Chain Saws*
PIONEER 41W	PIONEER P41
	PIONEER FARMSAW
PIONEER P26/P28 "E"	PIONEER P26
	PIONEER P28
	PIONEER MODEL 1074
PIONEER P42/P38/FL	PIONEER P38
	PIONEER P42
	PIONEER FARMLITE
PIONEER P50W	PIONEER P50
	PIONEER P51
	PIONEER P55
PIONEER P55W	PIONEER P50
	PIONEER P55
PIONEER WR	PIONEER FMW
	PIONEER FMSW
	PIONEER P41W
	PIONEER P51SW
	PIONEER P51W
	PIONEER P61SW
	PIONEER P61W
PIONEER WR1	PIONEER P42 GFW
	PIONEER P42 SFW
	PIONEER P52 GFW
	PIONEER P52 SFW
	PIONEER P62 GFW
	PIONEER P62 SFW

POULAN–BEAIRD POULAN DIVISION

Emerson Electric Company
P. O. Box 9329
Shreveport, Louisiana 71109

Chain Saw Exhaust System	*Chain Saws*
POULAN 245	POULAN 245
	POULAN 245A
	POULAN 245SA
	POULAN 306A
	POULAN 306SA
	DAYTON 2Z791
	DAYTON 2Z463
	WIZARD 430
	WIZARD 430B
POULAN 3400	POULAN 3400
	SKIL 1641
POULAN 3700	POULAN 3700
	POULAN 3400
POULAN 4000	POULAN 3400 COUNTERVIBE
	POULAN 3700 COUNTERVIBE
	POULAN 4000 COUNTERVIBE
POULAN 8500	POULAN 6900 COUNTERVIBE
	POULAN 7700 COUNTERVIBE
	POULAN 8500 COUNTERVIBE
POULAN 4200 CVA	POULAN 4200 CVA
	POULAN 5200 CVA
POULAN 5200 CVA	POULAN 5200 CVA
	POULAN 4200 CVA
"EXPORT GUARD" & 69034 KIT	POULAN 1800
	POULAN 2000
	POULAN 2300 AV
	POULAN 2300 CVA
	POULAN 2300 COUNTERVIBE
	POULAN 2300 POWER SHARP
	DAYTON 4Z023
	DAYTON 4Z109
	SEARS 358-353660
	SEARS 358-353670
	SEARS 358-353630
	SEARS 358-353690
	SKIL 1620
	SKIL 1622
	SKIL 1624
	SKIL 1634

(POULAN MODELS CONTINUED)

POULAN *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
"EXPORT GUARD" & 69034 KIT	WIZARD 1800
	WIZARD 2000
POULAN MICRO XXV	POULAN MICRO XXV
	POULAN MICRO XXV-CVA
	POULAN MICRO XXV DELUXE
	POULAN MICRO XXV SUPER DELUXE
	CRAFTSMAN 2.0–10"
	CRAFTSMAN 2.0–12"
	CRAFTSMAN 2.0–14"
	CRAFTSMAN 2.0–PS
	DAYTON 4Z022
	DAYTON 4Z023
	DAYTON 4Z109
	DAYTON 4Z109B
	SKIL 1620
	SKIL 1622
	SKIL 1624
	WIZARD 110
	WIZARD 112
	WIZARD 214
POULAN SUPER XXV-CVA	POULAN SUPER XXV-CVA
	POULAN SUPER XXV DELUXE AUTO
	CRAFTSMAN 2.3 A
	CRAFTSMAN 2.3 CVA
	CRAFTSMAN 2.3 PS
	DAYTON 2Z970
	SKIL 1634
	WIZARD 316
	WIZARD 316 AV

NOTE: See DOLMAR Section for other POULAN chain saws.

SPARK ARRESTER GUIDE

REMINGTON–DESA INDUSTRIES
25000 South Western Avenue
Park Forest, Illinois 60466

Chain Saw Exhaust System	*Chain Saws*
DESA MIGHTY MITE 400	REMINGTON MIGHTY MITE 100
	REMINGTON MIGHTY MITE 200
	REMINGTON MIGHTY MITE 300
	REMINGTON MIGHTY MITE 400
	REMINGTON MIGHTY MITE 500
	REMINGTON JOB MASTER
	REMINGTON OUTDOORS II
	REMINGTON SPORTSMAN II
	REMINGTON YARD MASTER
	MONTGOMERY WARD 24050
	MONTGOMERY WARD 24052
	MONTGOMERY WARD 24054
	MONTGOMERY WARD 24056

ROPER–ROPER OUTDOOR PRODUCTS
Broadway and Schuyler Avenues
Bradley, Illinois 60915

Chain Saw Exhaust System	*Chain Saws*
ROPER M 361780	CRAFTSMAN 3.7M 353730
	CRAFTSMAN 3.7M 353731
	CRAFTSMAN 3.7M 353734
	CRAFTSMAN 3.7M 353770
	CRAFTSMAN 3.7M 353771
	CRAFTSMAN 3.7M 353774
	CRAFTSMAN 3.7M 353775
SEARS CRAFTSMAN M 361560	CRAFTSMAN 3.7M 357224
	CRAFTSMAN 3.7M 357225
	CRAFTSMAN 3.7M 357393
	CRAFTSMAN 3.7M 357394
SEARSCRAFTSMAN M 361560	SEARS CRAFTSMAN M 352560
	SEARS CRAFTSMAN M 352561
	MASSEY-FERGUSON C-2528 AM
SEARS CRAFTSMAN M 361760	SEARS CRAFTSMAN M 353760
	SEARS CRAFTSMAN M 353720
	MASSEY-FERGUSON C-3718 AM

NOTE: See POULAN and HOMELITE Sections for other CRAFTSMAN chain saws.

SACHS-DOLMAR

708 Florence Street
Atlanta, TX 75551

Chain Saw Exhaust System	*Chain Saws*
SACHS-DOLMAR 100	SACHS-DOLMAR 100 AGR 169
SACHS-DOLMAR 110	SACHS-DOLMAR 110
DOLMAR 114	SACHS-DOLMAR 112
	SACHS-DOLMAR 113
	SACHS-DOLMAR 113H
	SACHS-DOLMAR 114
SACHS-DOLMAR 116	SACHS-DOLMAR 112
	SACHS-DOLMAR 113
	SACHS-DOLMAR 114
	SACHS-DOLMAR 116
	SACHS-DOLMAR 116 *(with K&N air filter)*
DOLMAR 119	SACHS-DOLMAR 117
	SACHS-DOLMAR 119
	SACHS-DOLMAR 120
DOLMAR 123	SACHS-DOLMAR 123
	SACHS-DOLMAR 133
DOLMAR 153	SACHS-DOLMAR 153
	POULAN MOD S-6000
SACHS-DOLMAR 166	SACHS-DOLMAR 166

NOTE: See FRONTIER Section for other DOLMAR chain saws.

SHINDAIWA

11975 S.W. Herman Road
Sherwood, Oregon 97140

Chain Saw Exhaust System	*Chain Saws*
SHINDAIWA 450	SHINDAIWA 415
	SHINDAIWA 450
SHINDAIWA 500	SHINDAIWA 350
	SHINDAIWA 416
	SHINDAIWA 451
	SHINDAIWA 500
SHINDAIWA 680	SHINDAIWA 680

SKIL–SKIL CORPORATION
5033 North Elston Avenue
Chicago, Illinois 60630

Chain Saw Exhaust System	*Chain Saws*
SKIL 320500	**SKIL 933–Type 1 & Ascending Types**
	SKIL 944–Type 4 & Ascending Types
	SKIL 946–Type 1 & Ascending Types
	SKIL 947–Type 4 & Ascending Types
	SKIL 1610–Type 3 & Ascending Types
	SKIL 1611–Type 1 & Ascending Types
	SKIL 1614–Type 3 & Ascending Types
	SKIL 1616–Type 3 & Ascending Types
SKIL 320502	**HUSQVARNA HUSKY 34 FF–Type 3 & Ascending Types**
	HUSQVARNA HUSKY 34 DELUXE–Type 3 & Ascending Types
	PARTNER 1610–Type 3 & Ascending Types
	PARTNER 1611–Type 1 & Ascending Types
	PARTNER 1614–Type 3 & Ascending Types
	PARTNER 1616–Type 3 & Ascending Types
	SKIL 933–Type 1 & Ascending Types
	SKIL 944–Type 4 & Ascending Types
	SKIL 946–Type 1 & Ascending Types
	SKIL 947–Type 4 & Ascending Types
	SKIL 1610–Type 3 & Ascending Types
	SKIL 1611–Type 1 & Ascending Types
	SKIL 1614–Type 3 & Ascending Types
	SKIL 1616–Type 3 & Ascending Types
SKIL 750355	**SKIL 1632–T1**
	SKIL 1646–T1
	SKIL 1647C–T1

NOTE: See POULAN Section for other SKIL chain saws.

STIHL—STIHL, INC.
536 Viking Drive
Virginia Beach, Virginia 23452

Chain Saw Exhaust System	*Chain Saws*
1106-140-0607	STIHL 070 *(when equipped with West Coast spikes)*
	STIHL 090 *(when equipped with West Coast spikes)*
	STIHL 090 R *(when equipped with West Coast spikes)*
	STIHL 090 AV *(when equipped with West Coast spikes)*
1108-140-0605	STIHL 08 SUPER
1109-140-0603	STIHL 090 G
1110-140-0613	STIHL 041 AV
	STIHL 041 AVE
	STIHL 041 AVEQ
1110-140-0614	STIHL 041 AVES
	STIHL 041 AVEQS
	STIHL 041 AVERS
1110-140-0615	STIHL 041 FARM BOSS
1111-140-0604	STIHL 075 AVE
	STIHL 075 AVRE
	STIHL 075 AVEQ
	STIHL 075 AVREQ
1111-140-0605	STIHL 051 AVE
	STIHL 051 AVEQ
	STIHL 051 AVER
	STIHL 051 AVEW
1111-140-0609	STIHL 051 AV
	STIHL 051 AVE
	STIHL 051 AVER
1111-140-0610	STIHL 075 AV
	STIHL 075 AVE
	STIHL 075 AVRE
	STIHL 075 AVREQ
	STIHL 076 AVE
	STIHL 076 AVRE
	STIHL 076 AVREQ
1111-140-0610 "d"	STIHL 076 AVSEQ
1113-140-0605	STIHL 031 AV
	STIHL 031 AVE
	STIHL 031 AVEQ
	STIHL 031 AVEQW
	STIHL 031 AVEW

(STIHL MODELS CONTINUED)

STIHL *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
1113-140-0607	**STIHL 032 AV**
	STIHL 032 AVE
	STIHL 032 AVEQ
1113-140-0609	**STIHL 032 AV**
	STIHL 032 AVE
	STIHL 032 AVEQ
	STIHL 032 AVEQZ
	STIHL 032 AVQ
1114-140-0607 *(with 1114-648-0405 cover)*	**STIHL 015**
	STIHL 015 AV
	STIHL 015 AVE
	STIHL 015 AVEQ
	STIHL 015 AVQ
	STIHL 015 L
	STIHL 015 LE
	STIHL 015 LQ
	STIHL 020 AV
	STIHL 020 AVE
	STIHL 020 AVEP
	STIHL 020 AVP
	STIHL 020 AVPSEQZ
	STIHL 020 AVPSEZ
	STIHL 020 AVPSZ
	STIHL 020 AVSZ
1115-140-0605	**STIHL 045 AV**
	STIHL 045 AVE
	STIHL 045 AVER
	STIHL 045 AVES
	STIHL 045 AVESR
	STIHL 045 AVESQR
	STIHL 045 AVE SUPER 2
	STIHL 056 AVE
	STIHL 056 AVEZ
	STIHL 056 AVEQZ
	STIHL 056 AVSEZ
	STIHL 056 AVSEQZ
	STIHL 056 AVRSEQZ
	STIHL 056 AV MAGNUM
1115-140-0606	**STIHL 045 AVE**
	STIHL 045 AVEQ
	STIHL 045 AVERSZ
	STIHL 045 AVESQRZ
	STIHL 045 AVESZ

(STIHL MODELS CONTINUED)

STIHL *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
1115-140-0606 *(Continued)*	STIHL 045 AVE SUPER 2
	STIHL 045 AVRE
	STIHL AVSZ
	STIHL 056 AVEQZ
	STIHL 056 AVERSZ
	STIHL 056 AVESQRZ
	STIHL 056 AVESZ
	STIHL 056 AVEZ
	STIHL 056 AVRE
	STIHL 056 AVSEZ
	STIHL 056 AVSZ
	STIHL 056 AVZ
1115-140-0607	STIHL 056 AVRSEQZ
	STIHL 056 AVSEQZ
	STIHL 056 AVZ
	STIHL 056 AVE
	STIHL 056 AVEQ
	STIHL 056 AVEQZ
	STIHL 056 AVSEZ
	STIHL 056 AV MAGNUM
1115-140-0608	STIHL 056 AVE
	STIHL 056 AVEQ
	STIHL 056 AVEQZ
	STIHL 056 AVSEZ
	STIHL 056 AVSEQZ
	STIHL 056 AVRSEQZ
	STIHL 056 AV MAGNUM
1117-001-3000	STIHL 042 AVE
	STIHL 042 AVEQ
1117-140-0602	STIHL 048 AVEQZ
	STIHL 048 AVEZ
1117-140-0603	STIHL 048 AVE
	STIHL 048 AVEQ
	STIHL 048 AVEQZ
	STIHL 048 AVER
	STIHL 048 AVERQ
	STIHL 048 AVERQZ
1118-140-0601	STIHL 028 AV
	STIHL 028 WB
1118-140-0610	STIHL 028 AV
	STIHL 028 AVEQ
	STIHL 028 AVEQW
	STIHL 028 WOOD BOSS

(STIHL MODELS CONTINUED)

STIHL *(Continued)*

Chain Saw Exhaust System	*Chain Saws*
1118-140-0611	STIHL 028 AV
	STIHL 028 AVSEQZ
	STIHL 028 E
	STIHL 028 Q
	STIHL 028 WOOD BOSS
1119-140-0605	STIHL 038 AV
1119-140-0605 "c"	STIHL 038 AVRSE
	STIHL 038 AVRSEQ
	STIHL 038 AVSE
	STIHL 038 AVSEQ
1119-140-0606	STIHL 038 AV MAGNUM EQ
	STIHL 038 AVEQ
	STIHL 038 AVSEQ
	STIHL 038 AVRSEQ
	STIHL 038 AVRSE
	STIHL 038 SUPER II
	STIHL FARM BOSS
1120-140-0600	STIHL 009 E
	STIHL 009 EQ
	STIHL 009 L
	STIHL 009 LEQ
	STIHL 009 LQ
	STIHL 009 Q
	STIHL 010 AV
	STIHL 010 AVE
	STIHL 010 AVEQ
	STIHL 010 AVQ
	STIHL 011 AV
	STIHL 011 AVE
	STIHL 011 AVEQ
	STIHL 011 AVEQZ
	STIHL 011 AVQ
	STIHL 011 AVTEQ
1120-145-2800	STIHL 010 AV
	STIHL 010 AVQ
1120-145-2801	STIHL 009 QZ
	STIHL 009 Z
	STIHL 011 AVQZ
	STIHL 011 AVZ
1121-140-0601	STIHL 024 AVEQZ
	STIHL 024 AVSEQZ
1125-140-0601	STIHL 034 AVEQZ

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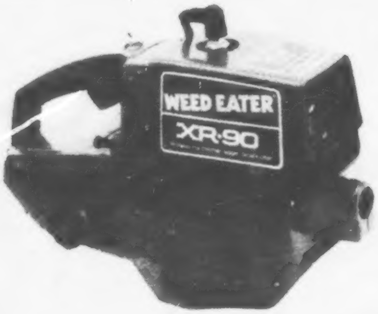
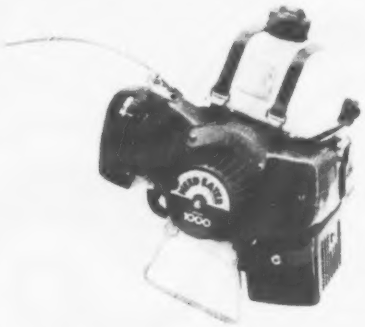
IDENTIFICATION KEY

MULTIPOSITION SMALL ENGINE EXHAUST SYSTEMS

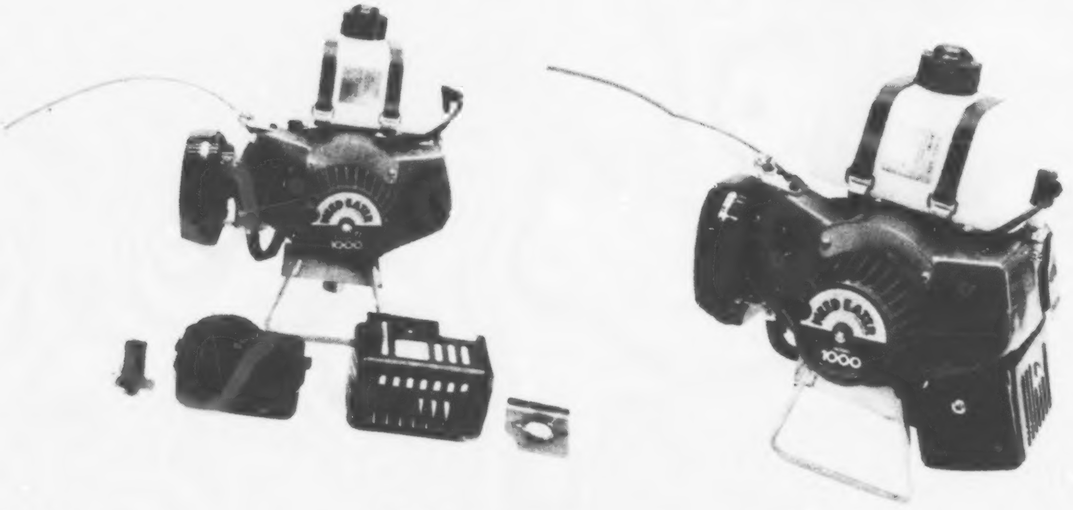
–Other than Chainsaws–

1	 WEED EATER XR-90	Front mounted–screen type
2	 WEED EATER 1000	Bottom mounted–screen type

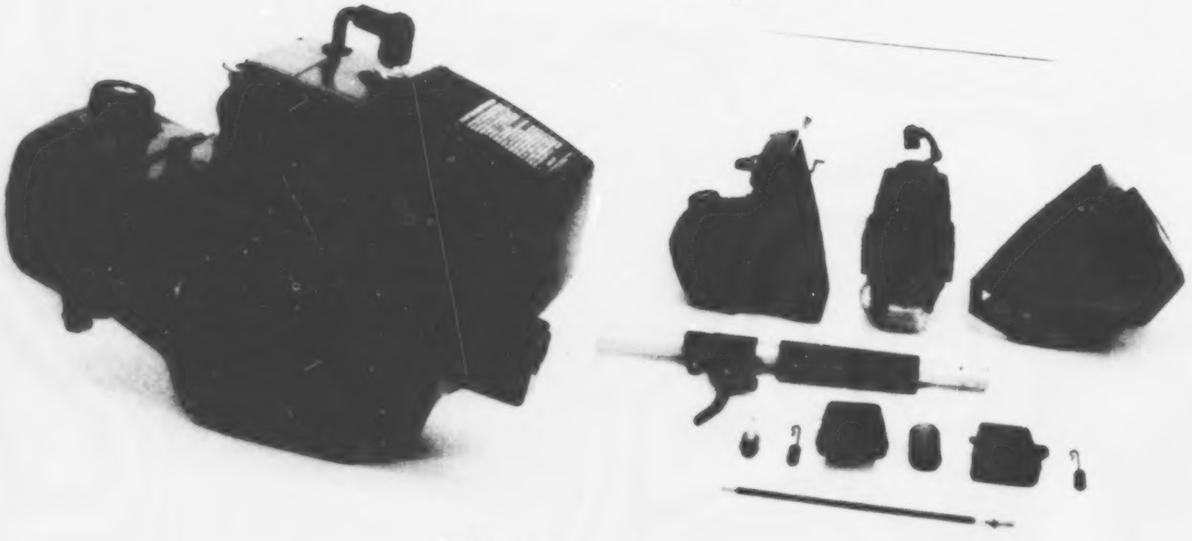
MULTIPOSITION SMALL ENGINE EXHAUST SYSTEMS

–Other than Chainsaws–

BEAIRD-POULAN
Division of Emerson Electric Co.
5020 Flournoy-Lucas Road
Shreveport, Louisiana 71109


WEED EATER
1000
WEED EATER
1000

1000 WEED EATER



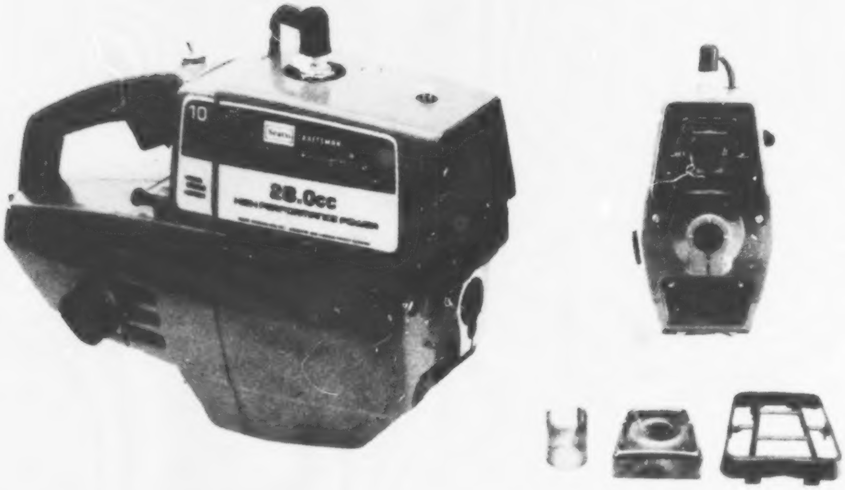
POULAN LO TONE

Used on Poulan Pro 150 Trimmer/Brush Cutter &
XR Trimmer

BEAIRD-POULAN (Continued)

WEEDWACKER

SEARS 79570

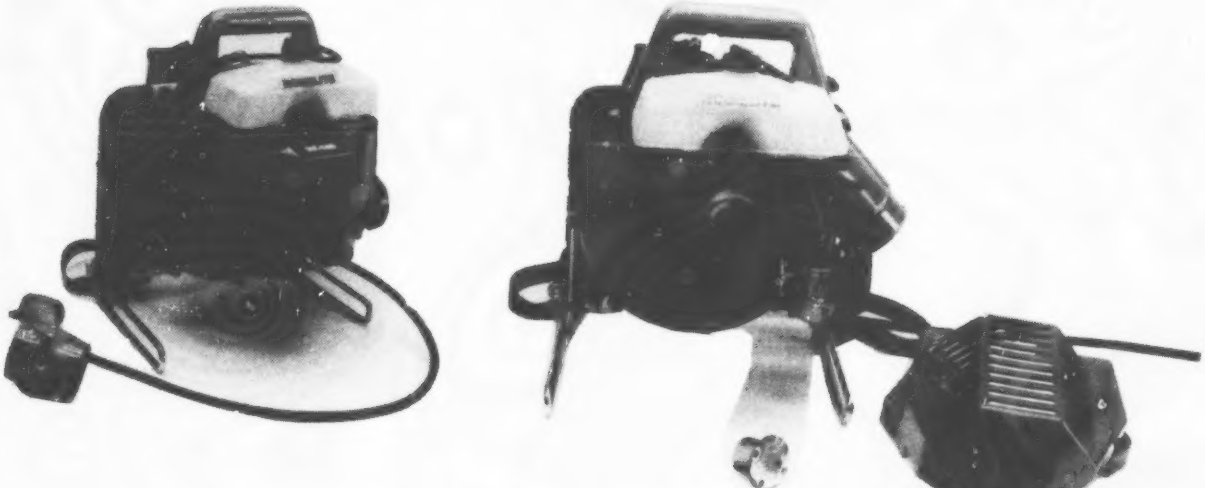

10
28.0cc
HIGH PERFORMANCE POWER

SEARS 79552

MULTIPOSITION SMALL ENGINE EXHAUST SYSTEMS

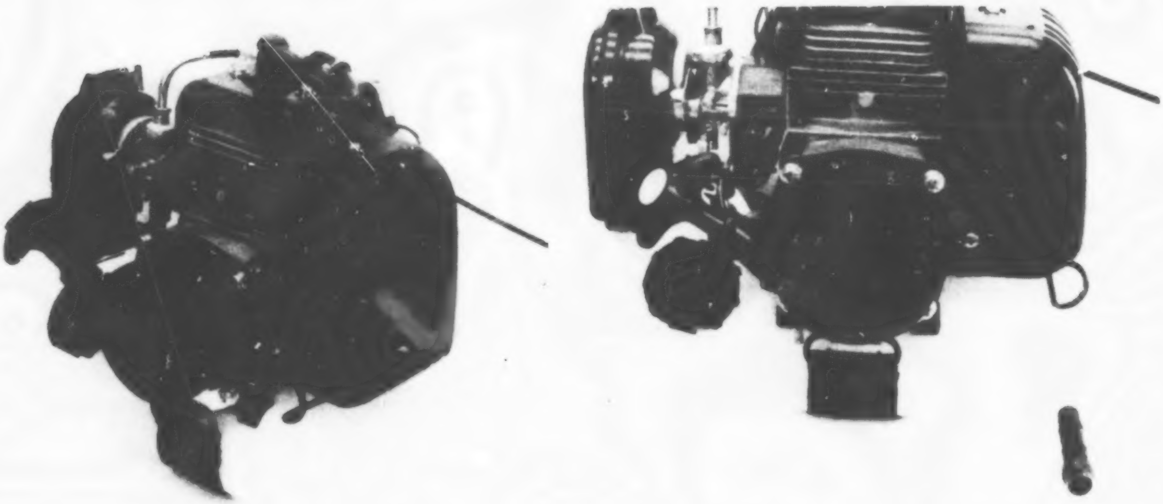
–Other than Chainsaws–

HOMELITE–HOMELITE TEXTRON
P. O. Box 7047
14401 Carowinds Boulevard
Charlotte, North Carolina 28217



HBW 1 BLOWER

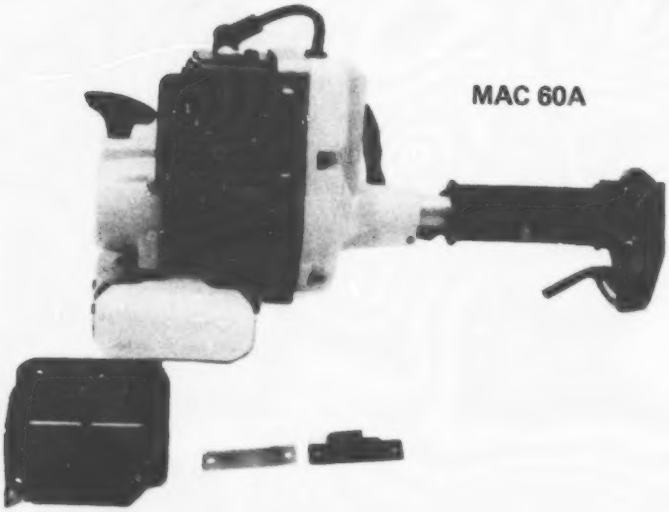
KAWASAKI MOTORS CORP., USA
Kawasaki Heavy Industries, Ltd.
P. O. Box 11447
Santa Ana, California 91711



TD 40D

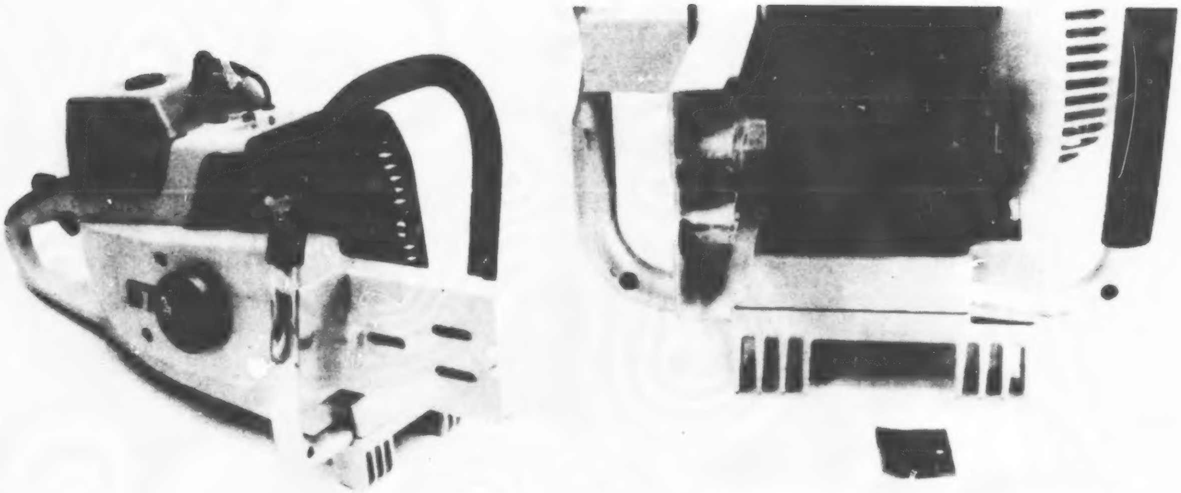
Used on Kawasaki TD 40 engine on Beaird-Poulan Weed Eater

McCULLOCH—McCULLOCH CORP.
5401 Beethoven Street
Los Angeles, California 90066



MAC 60A

STIHL, INC.
536 Viking Drive
Virginia Beach, Virginia 23452

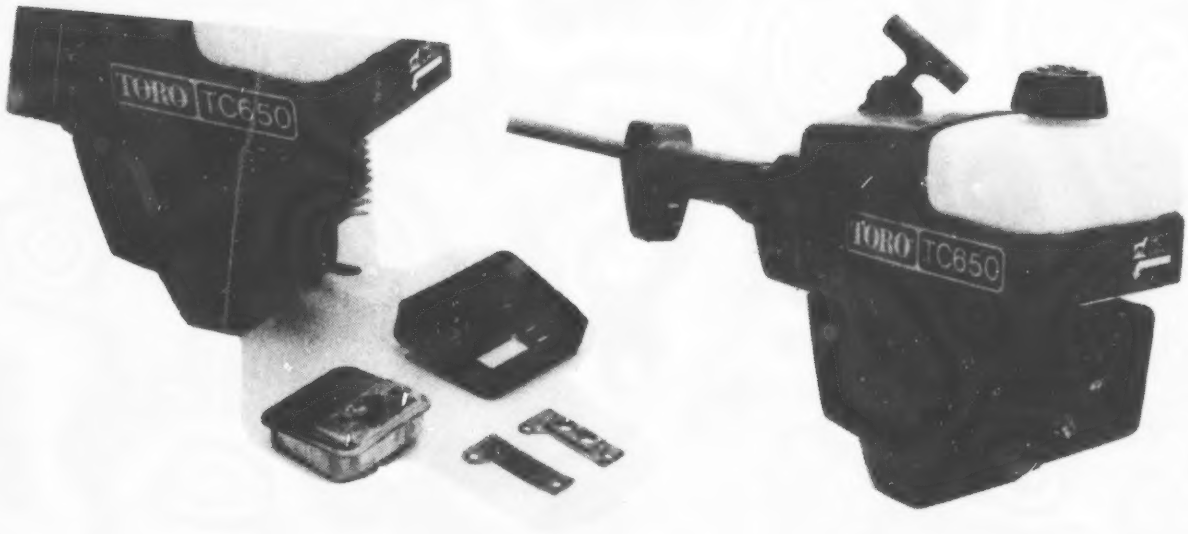


4201-140-0603AV

Used on Stihl TS 350 AVE Cutoff Saw

TORO—TORO COMPANY
508 Industrial Drive
Willmar, Minnesota 56201

TORO 45-2620


TORO TC650
TORO TC650

TORO 650 TRIMMER

SPARK ARRESTER GUIDE

MULTIPOSITION SMALL ENGINE EXHAUST SYSTEMS

(Qualified under "Interim Manufacturer's Certification)

–OTHER THAN CHAIN SAWS–

Listed below are multi-position small engine exhaust systems which are qualified under the Interim Manufacturer's Certification program. This program was developed by the California Department of Forestry (Section 4443 of the Public Resources Code and Sections 1240 through 1242.1 of the California Administrative Code). These exhaust systems have been qualified solely on the manufacturer's testing (tested in accordance with SAE J335b), and have not been tested by the San Dimas Equipment Development Center (SDEDC). The duration of this interim certification program was 1978 through February 1982.

BEAIRD POULAN

Emerson Electric Co.
P. O. Box 9329
Shreveport, Lousiana 71109

Exhaust System Model	*When Used With (Engine)*	*Date Interim Certified*
Poulan 2600	Poulan 2600 Line Trimmer	12/5/79
	Poulan 2610 Line Trimmer	12/5/79
	Poulan 2620 Line Trimmer	12/5/79
	Craftsman 79541 Line Trimmer	12/5/79
	Craftsman 79542 Line Trimmer	12/5/79
	Craftsman 79543 Line Trimmer	12/5/79
	Montgomery Ward 1930	12/5/79
	Montgomery Ward 1931	12/5/79
	Montgomery Ward 1932	12/5/79
	Weed Eater XR 50	12/5/79
	Weed Eater XR 70	12/5/79
	Weed Eater XR 90	12/5/79
Poulan 795452	Sears 795452 Line Trimmer	12/1/80
	Weed Eater 1000	12/1/80

HAWAII MOTOR COMPANY

20710 Alameda Street
Carson, California 90745

Exhaust System Model	*When Used With (Engine)*	*Date Interim Certified*
Xenoah (Green Machine)	Hawaii Motor Co. Trimmer–	
	Model 3000	12/4/78
	Model 4000	12/4/78

KAWASAKI MOTORS CORP., USA

Kawasaki Heavy Industries, Ltd.
P. O. Box 11447
Santa Ana, California 91711

Exhaust System Model	*When Used With (Engine)*	*Date Interim Certified*
Kawasaki TA 36	Kawasaki Blower KT 36	6/24/80
Kawasaki TA 51	Kawasaki Blower KT 51	6/24/80
Kawasaki 3115	Kawasaki, 2-cycle KF 12	9/25/79
Kawasaki 3117	Kawasaki Brush Cutter KT 17	5/19/80
Kawasaki 3125	Kawasaki Blower KT 28	5/19/80

KIORITZ CORP. OF AMERICA

3150 MacArthur Boulevard
Northbrook, Illinois 60062

Exhaust System Model	*When Used With (Engine)*	*Date Interim Certified*
Kioritz 00660	Echo Power Blower–PB202	7/26/79
Kioritz 01110	Echo Duster Mister–DM9	7/26/79
	Echo Power Blower–JD4 & PB9	7/26/79
Kioritz 04420	Echo Brush Cutter–200D	10/31/78
	Echo String Trimmer–SV-3	7/26/79
	Little Wonder Trimmer–SV-2	10/31/78
	Sears String Trimmer–K-35	10/31/78
	Toro String Trimmer–S-2P	10/31/78
	Weed Eater–K-2W	10/31/78
Kioritz 04930	Echo Brush Cutter–SRM 302 ADX	10/31/78
	Sears Brush Cutter–28161	10/31/78
Kioritz 05120	A.P.E. Quik Trimmer, Engine S-2A/2 Model 128	7/26/79
	Echo Engine KE 200 DA– SRM 200 DA & SRM 200 DB	7/26/79
	Echo, The Trimmer B-2, Engine S-2A/1 Model B-2	7/26/79
	John Deere, Engine K-3AW–80G	7/26/79
	Montgomery Ward Grass Getter, Engine K-3AW–1927	7/29/79
	Poulan, Engine K-3AW– 800 & 900 GLT	7/29/79

(KIORITZ MODELS CONTINUED)

Exhaust System Model	*When Used With (Engine)*	*Date Interim Certified*
Kioritz 05120 *(Continued)*	Simpson Sears Weedwalker, Engine K-3AW–234.514050 & 234.7957	7/29/79
	Sears Engine KE 200 DA–271.281512	7/26/79
	Toro 2100 Trimmer, Engine S-2AP–51700	7/26/79
	Weed Eater (Canada), Engine K-3AW–609-01	7/29/79
	Weed Eater, Engine K-3AW–609, 698 & 698-01	7/29/79
Kioritz 05330	Echo Brush Cutter–202 FA & 202 D	10/31/78
	Echo Brush Cutter–SRM 202 DA	7/26/78
	Sears Brush Cutter–28151	10/31/78
Kioritz 06320	Echo Grass Trimmer–F-1A	1/31/80
	Echo, Kioritz H-1–SRM-200	1/31/80
	Echo, Kioritz G-1AK–GT-140A	1/31/80
	McCulloch, Kioritz G-1AM–"Mac-60" & "Mac-70"	1/31/80
	McCulloch, Kioritz H-1M–"Mac-80" & "Mac-95"	1/31/80
Kioritz 06530	Echo Scythe–SRM 140D	10/31/78
	Sears Scythe–28171	10/31/78
	Toro Scythe–F-1P	10/31/78
Kioritz 07730	A.P.E. Quik Trimmer, Engine F-2/3–085	7/26/79
	Echo Engine KE 140 DA--SRM 140 DA	7/26/79
	Hoffco Trimmer, Engine F-2/2–GT-14	7/26/79
	Sears Engine 140 DA–271.281711	7/26/79
	S.M.C. Trimmer, Engine F-2/1–B-3	7/26/79
	Toro Trimmer, Engine F-2–51625	7/26/79

STIHL, INC.
536 Viking Drive
Virginia Beach, Virginia 23452

Exhaust System Model	*When Used With (Engine)*	*Date Interim Certified*
Stihl Fire Safe Muffler 4201-140-0603	FS 60 Cut-Quick	10/24/79
	FS 200 Brush Cutter	10/24/79
	HS 151 Hedge Trimmer	10/24/79
	HS 200 Hedge Trimmer	10/24/79
	Stihl Brush Cutter, 5.6 cu in engine–FS 353	10/24/79
	Stihl Cut-Quick, 5.6 cu in engine–TS 350	10/24/79
	TS 200 Cut-Quick	10/24/79

SPARK ARRESTER GUIDE

MULTIPOSITION SMALL ENGINE EXHAUST SYSTEMS

–OTHER THAN CHAIN SAWS–

Listed below are Multiposition Small Engine Exhaust Systems (other than chain saws) which have been qualified in accordance with Recommended Practice SAE J335b "Multiposition Small Engine Exhaust System Fire Ignition Suppression." Enforcement date for provisions of SAE J335b and specific equipment to which it will apply varies from state to state. For specific enforcement details check with fire prevention authorities in your area.

BEAIRD POULAN

Emerson Electric Company
P. O. Box 9329
Shreveport, Louisiana 71109

Poulan Lo Tone	Poulan Pro 150 Trimmer Poulan XR Trimmer
Weed Eater	Weed Eater 1000 Line–Trimmer/Brush Cutter
Sears 79552	John Deere 82G John Deere 83G Poulan 1500 Poulan 1700 Poulan 2600 Poulan 2610 Poulan 2620 Sears 79552 Line Trimmer Sears 79549 Line Trimmer Sears 79551 Line Trimmer Sears 79534 Line Trimmer Weed Eater XR-50 Weed Eater XR-70 Weed Eater XR-75 Weed Eater XR-90 Weed Eater 4000 Weed Eater 5000 Weed Eater 6000
Sears 79570	Sears 795700

HOMELITE–HOMELITE TEXTRON

P. O. Box 7047
14401 Carowinds Boulevard
Charlotte, North Carolina 28217

Homelite HBW 1	Homelite HB 280 Blower Homelite HB 480 Blower Homelite HB 680 Blower

KAWASAKI

Kawasaki Heavy Industries Ltd.
P. O. Box 11447
Santa Ana, California 92711

Kawasaki TD40D	Beaird-Poulan Weed Eater— with Kawasaki TD40 engine

McCULLOCH CORPORATION

5401 Beethoven Street
Los Angeles, California 90066

McCulloch MAC 60A	McCulloch MAC 60A McCulloch MAC 80A McCulloch MAC 90A McCulloch MAC 95A

STIHL, INC.

536 Viking Drive
Virginia Beach, Virginia 23452

Stihl 4201-140-0603AV	Stihl TS350AVE Cutoff saw Stihl TS360AVE Cutoff saw

TORO COMPANY

508 Industrial Drive
Willmar, Minnesota 56201

Toro 45-2620	Toro TC 400 Toro TC 300
Toro 45-2630	Toro 650 Trimmer

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SECTION III–LOCOMOTIVE-TYPE SPARK ARRESTERS

LOCOMOTIVE-TYPE SPARK ARRESTERS are currently tested against the latest revision of the Association of American Railroads (AAR) recommended practice for testing locomotive spark arresters. Upon publication of revised Society of Automotive Engineers recommended practice SAE J342 that document may also become an acceptable test standard for locomotive spark arresters. Either of these documents establish the minimum performance and maintenance requirements for locomotive spark arresters.

EXTERNAL ARRESTERS are those designed to be installed on the locomotive exhaust stack above the locomotive profile.

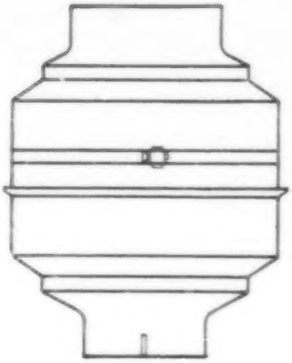
INTERNAL ARRESTERS make use of the engine manifold and are installed below the locomotive profile.

IDENTIFICATION KEY

Internal type locomotive spark arresters have six basic body variations referred to as body types I, II, III, IV, V, and VI. Each of these body types may use one or more of 4 leg designs referred to as A–swirl leg, B–bent leg, C–straight leg, or D–short straight leg.

The appropriate model number will appear on the spark arrester and corresponds to drawing numbers on file at the SDEDC.

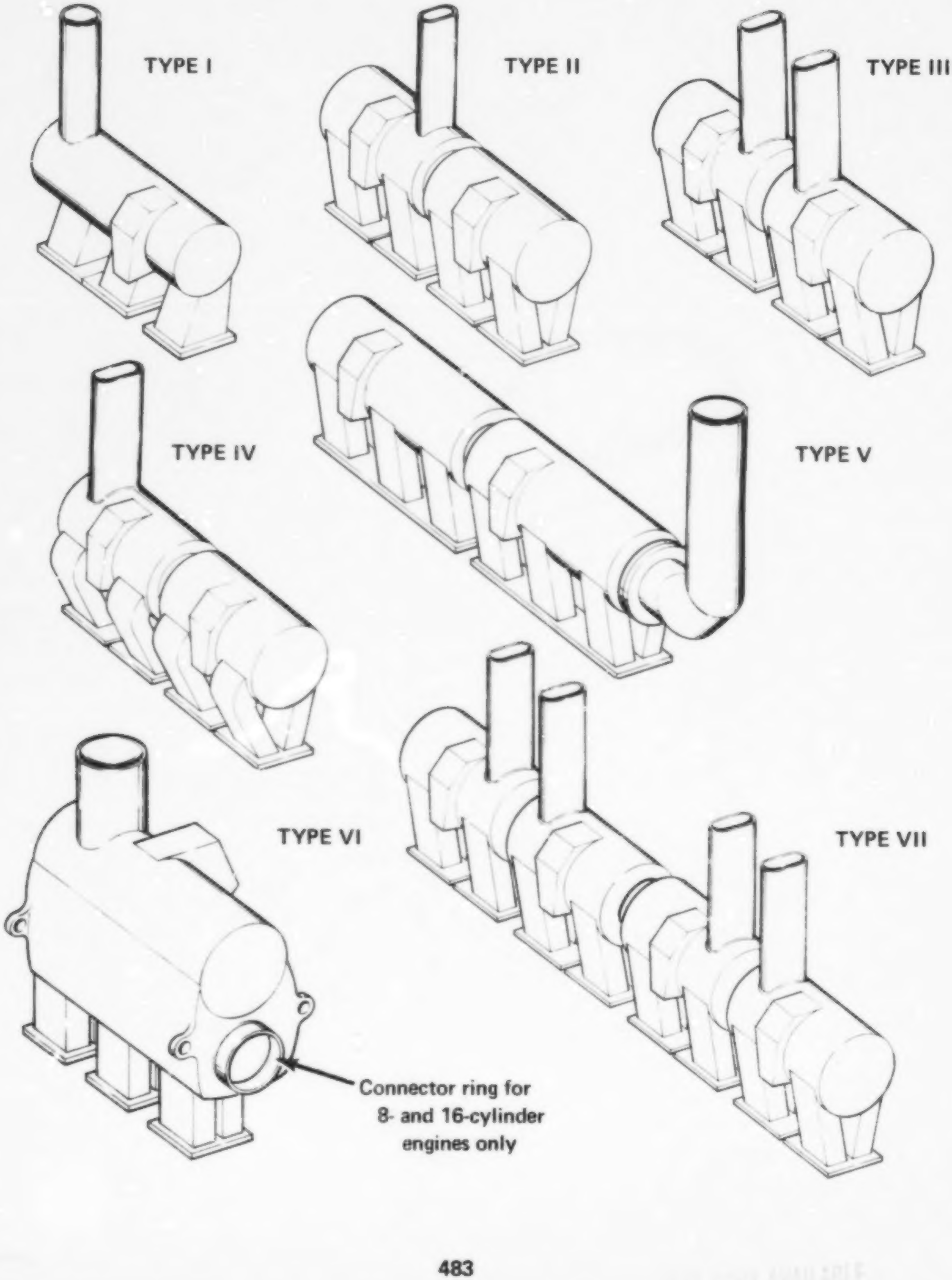
EXTERNAL ARRESTERS–External arresters are fitted to the exhaust stack of a conventional manifold.



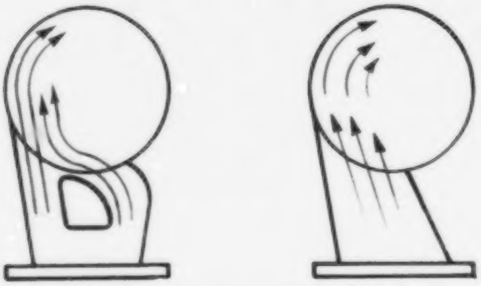
INTERNAL ARRESTERS–Internal arresters make use of a modified manifold. They can have any combination of body type and leg configuration as shown on the following pages and as listed on the individual qualification.

LOCOMOTIVE SPARK ARRESTERS

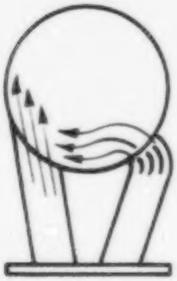
INTERNAL SPARK ARRESTERS—Body Types


TYPE I
TYPE II
TYPE III
TYPE IV
TYPE V
TYPE VI
TYPE VII
Connector ring for
8- and 16-cylinder
engines only

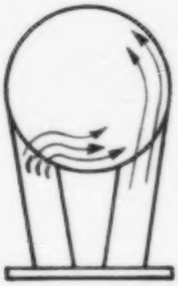
LEG CONFIGURATIONS



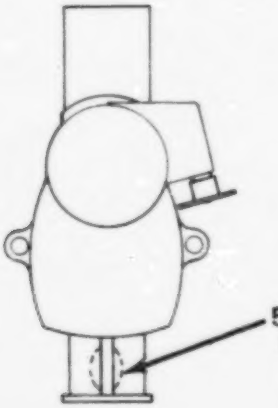
TYPE A SWIRL



TYPE B BENT



TYPE C STRAIGHT



567 engine only—
two legs at *stack end*
of arrester manifold

TYPE D SHORT STRAIGHT

SPARK ARRESTER GUIDE

LOCOMOTIVE TYPE SPARK ARRESTERS

—QUALIFIED AND RATED LIST—

BURLINGTON NORTHERN, INC. (Great Northern Railway)

Model No.	Body Type	Leg Type	Remarks
GN7	IV	C	Unit consists of two sections combined. Two stacks near center.
GN8	IV	C	

HARCO MANUFACTURING COMPANY

Model No.	Body Type	Leg Type	Remarks
HAPCO 7 AB	External	n/a	Single inlet fits on exhaust stack.
HAPCO 8 AB	External	n/a	Single inlet fits on exhaust stack.
HAPCO 10 AB	External	n/a	Single inlet fits on exhaust stack.
HAPCO 12 AB	External	n/a	Single inlet fits on exhaust stack.
EMD 32379 *(Discontinued)*	II (with stack)	C	For GP-7 only. Two units, one with exhaust stack and one without exhaust stack make a set.
EMD 32379B	II (w/o stack)	C	
EMD 32379A	II (with stack)	C	For GP-7, GP-9, GP-18, GP-28 & GP-38. Two units one with exhaust stack and one without stack make a set.
EMD 32379AB	II (w/o stack)	C	
EMD 32379SDA	IV (with stack)	C	For SD-7 and SD-9 with dynamic barke. Two units one with exhaust stack and one without exhaust stack make a set.
EMD 32379SDAB	IV (w/o stack)	C	
EMD 44379	II (with stack)	C	For GP-38, two units one with exhaust stack and one without stack make a set
EMD 44379B	II (w/o stack)	C	

As indicated above the HAPCO series are external spark arresters designed to be installed on standard locomotive manifold stacks. The backpressure of an external arrester is additive to that of the manifold. Users of external arresters should measure maximum manifold leg backpressure with the arrester installed to make certain it does not exceed the 3½ inches of mercury backpressure limit specified by the AAR Recommended Practice.

SPARK ARRESTER GUIDE

–QUALIFIED AND RATED LIST–

ELECTRO-MOTIVE DIVISION– General Motors

Model No.	Body Type	Leg Type	Remarks
EMD 8426352	I (with stack)	A	Two sections form unit for half of 16 cylinder engine. Two stacks at opposite ends.
EMD 8426353	I (w/o stack)	A	
EMD 8426353	I (w/o stack)	A	Two sections form unit for half of 16 cylinder engine. Two stacks at opposite ends.
EMD 8426354	I (with stack)	A	
EMD 8426353	I (w/o stack)	A	Two sections form unit for half of 16 cylinder engine. Two stacks at opposite ends.
EMD 8426355	I (with stack)	A	
EMD 8426356	I (with stack)	A	Two sections form unit for half of 12 cylinder engine. Two stacks at opposite ends.
EMD 8426356	I (with stack)	A	
EMD 9093985	I (with stack)	A	Two sections form unit for half of 16 cylinder engine. Two stacks at opposite ends.
EMD 8426353	I (w/o stack)	A	
EMD 9093986	I (with stack)	A	Two sections form unit for half of 16 cylinder engine. Two stacks at opposite ends.
EMD 8426353	I (w/o stack)	A	
EMD 9093983	I (with stack)	A	Two sections form unit for half of 16 cylinder engine. Two stacks at opposite ends.
EMD 8426353	I (w/o stack)	A	
EMD 9093984	I (with stack)	A	Two sections form unit for half of 12 cylinder engine. Two stacks at opposite ends.
EMD 9093984	I (with stack)	A	

SPARK ARRESTER GUIDE

–QUALIFIED AND RATED LIST–

ELECTRO-MOTIVE DIVISION (Continued)

Model No.	*Body Type*	*Leg Type*	*Remarks*
EMD 9501801C	VI	D	For 8-645 engine–1 spark arrester unit* with 2-leg manifold connector
EMD 9501801C	VI	D	For 16-645 engine–2 spark arrester units* with 4-leg manifold connector
EMD 9515814A	VI	D	For 12-645 engine–2 independent spark arrester units*
EMD 9530989	VI	D	For 6-567A thru 6-567C engines–1 spark arrester unit*
EMD 9530989	VI	D	For 12-567A thru 12-567C engines–2 independent spark arrester units*
EMD 9531223	VI	D	For 8-567A thru 8-567C engines–1 spark arrester unit* with 2-leg manifold connector
EMD 9531223	VI	D	For 16-567A thru 16-567D engines–2 spark arrester units* with 4-leg manifold connector

*A spark arrester has 6 legs.

*FARR MODEL 5 LOCOMOTIVE SPARK ARRESTERS**

Model No.	*Body Type*	*Leg Type*	*Remarks*
C-37223	I	C	
C-37247	I	C	
C-42317	II	A	May not be marked with Farr No. 5
C-43888	III	A	
C-51994	II	A	May not be marked with Farr No. 5
C-58151	I	C	One round stack
C-70899	VII	C	Four oval stacks, manifolds are interconnected
C-71088	III & VII	C	Four oval stacks, one at each end and two adjacent stacks in the center, manifolds are interconnected
C-71372	VII	C	Four oval stacks, manifolds are interconnected
C-78327	VII	C	Same as C-70889, with side outlet trap
D-35001	II	C	
D-36781	V	C	
D-37458	I	B	
D-37819	II	B + C	
D-38040	V	B + C	
D-38100	IV	C	
D-38101	IV	B + C	
D-38370	II	C	
D-40791	I	A	
D-40841	I	A	
D-41275	III	C	
D-41431	I	A	End view looks like bent leg (waterpipe opening)
D-45312	II	C	
D-45313	IV	C	Side outlet trap
D-46091	II	C	Side outlet trap
D-46181	IV	C	Side outlet trap
D-46665	II	A + C	
D-47290	II	C	
D-47910	II	C	Side outlet trap
D-48747	II	A + C	Side outlet trap
D-49209	I	C	
D-50318	II	C	
D-50590	III	C	Side outlet trap
D-52151	II	B	
D-52179	IV	C	Side outlet trap
D-52190	II	C	Side outlet trap

(FARR MODELS CONTINUED)

**All have bottom trap outlet unless otherwise indicated in remarks.*

SPARK ARRESTER GUIDE

—QUALIFIED AND RATED LIST—

FARR MODELS (Continued)*

Model No.	Body Type	Leg Type	Remarks
D-52236	V	C	
D-52632	III	C	Side outlet trap
D-53043	V	C	
D-53104	II	C	
D-53347	II	C	
D-53355	II	B	
D-53415	IV	C	
D-53934	II	C	Side outlet trap
D-54500	IV	C	Side or bottom outlet trap
D-54501	II	C	Side or bottom outlet trap
D-54502	II	C	Side or bottom outlet trap
D-54503	IV	C	Side or bottom outlet trap
D-54504	II	C	Side or bottom outlet trap
D-54505	IV	C	Side or bottom outlet trap
D-58438	IV	C	One round stack
D-59286	IV	C	One round stack, standard EMD manifold
D-62777	II	C	One oval stack, quick-opening side outlet trap cover
D-62778	IV	C	One oval stack, quick-opening side outlet trap cover
D-65800	IV	C	One round stack, manifolds connected by a flex-joint connector
D-66531	IV	B or C	One oval stack
D-66541	IV	C	One oval stack
D-69642	III	C	Two oval stacks located in the middle, manifolds are not interconnected
D-71303	VII	C	Four oval stacks, manifolds are interconnected
D-72221	VII	A	Four oval stacks, manifolds are interconnected
D-72222	II	A	Two rectangular stacks, manifolds are interconnected
D-72698	III	B or C	Four oval stacks, manifolds are not interconnected
D-72704	III	B or C	Four oval stacks, manifolds are not interconnected
D-73358	VII	C	Approved as D-71303
D-75318	III	C	Approved as D-69642

**All have bottom trap outlet unless otherwise indicated in remarks.*

PENN CENTRAL TRANSPORTATION CO.

Model No.	*Body Type*	*Leg Type*	*Remarks*
C-466143-C	II	C	For EMD GP-9, RR class ERS 17

SOUTHERN PACIFIC RAILROAD

Model No.	*Body Type*	*Leg Type*	*Remarks*
PT 1	III	B	For GP-9 (Discontinued model)
PT II	I	B	For SD-9 (Discontinued model)

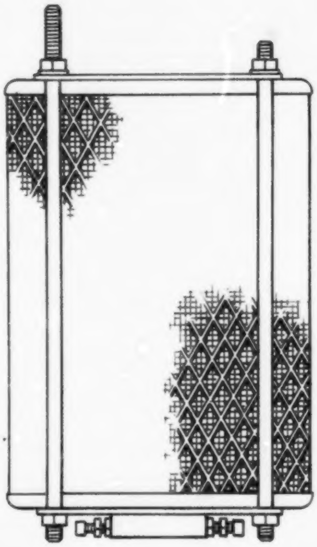
SECTION IV–SELECTION

This section assists in the selection of an arrester for a particular application. It also provides background information on the spark arrester program.

Exhaust Particles– All internal combustion engines produce exhaust particles which are predominately carbon with contaminates. These particles originate from deposits formed on the internal surfaces of the engine or exhaust system and, depending on their exact origin, may be expelled at temperatures as high as 4,000° F. Depending on the nature of the contaminates, these particles are capable of glowing or sometimes flaming combustion. When expelled through the exhaust system into the atmosphere, the combustion process may continue or even be accelerated during flight. Such particles, if larger than 0.023-inch in diameter are capable of igniting cellulose materials upon contact.

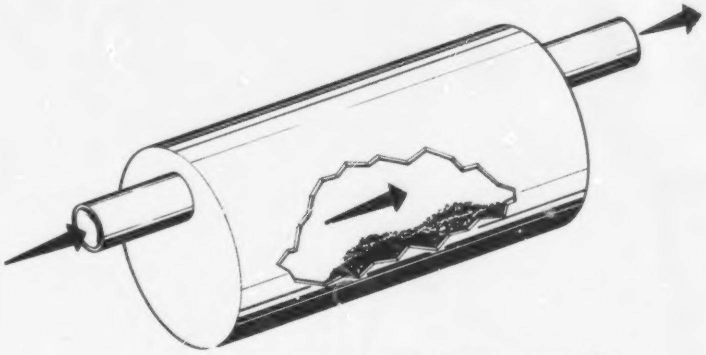
A Spark Arrester is a device which traps or pulverizes (to a size below 0.023-inch diameter) exhaust particles as they are expelled from the exhaust system. Most spark arresters generally perform in the high 90 percent spark arresting efficiency range.

Spark arresters operate on one of four basic principles as follows:



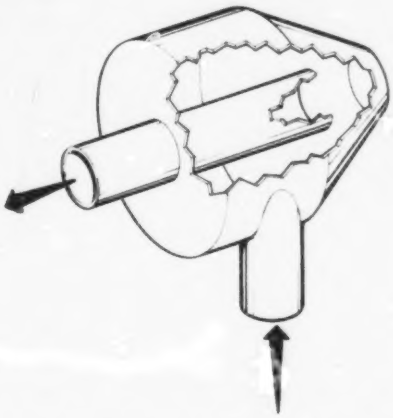
SCREEN TYPE SPARK ARRESTER

A. ***Screen type*** uses a screen with maximum openings of 0.023 inch so that particles larger than this dimension are mechanically prevented from escaping. The system works well for small applications.



FALL OUT TYPE SPARK ARRESTER

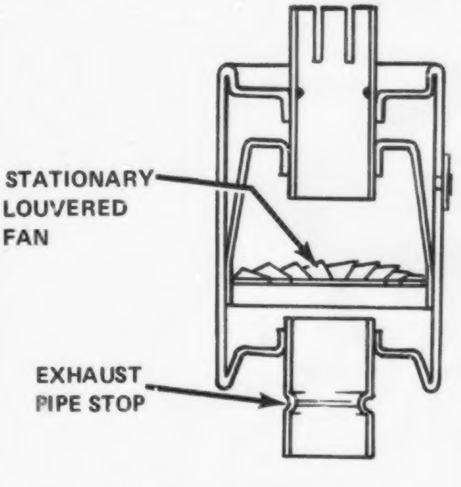
B. ***Fall-out type*** employs a very small inlet and outlet with a large chamber in between. Exhaust velocities within the chamber are so low that the particles fall to the bottom of the chamber. The design is seldom used because it is too large for most applications.



PULVERIZER TYPE SPARK ARRESTER

C. ***Pulverizer type***– Particles and gases are circulated within the arrester and rubbing contact with the inner surface reduces the particle size below 0.023-inch. The design has desirable features, but only works well with large-diameter devices. Only one manufacturer ever qualified a model of this type.

D. ***Trap type***– Particles and gases are circulated within the arrester, much like the pulverizer. The difference is that in the trap type, particles are directed into a trap, thus removing them from circulation. Gases are then allowed to escape into the atmosphere. The traps are emptied periodically.



TRAP TYPE SPARK ARRESTER

The trap type arrester is by far the most popular design and represents nearly all of the qualified units tested in accordance with USDA Forest Service Standard 5100-1a. In addition to the requirement that it be at least 80 percent efficient, a trap type unit must have a cleanout device. This may be a band-covered slot, pipe plug, or pull-out tube, but it must be operable without removing the complete unit from the exhaust system.

CLASSIFICATION OF SPARK ARRESTERS–There are three classifications of spark arresters. Each is tested under a different standard or recommended practice as indicated below:

A. ***Locomotive Spark Arresters*** are tested in accordance with Association of American Railroads (AAR) Recommended Practice, "Standard for Spark Arresters for Non-Turbo Charged Diesel Engines used in Railroad Locomotives." These units are designed for specific engine models and are not interchangeable for use on other engine models. Qualified units and identification material are reported in section 3 of this Guide. Since there is virtually no chance that a unit can be installed on the wrong engine, the chief concern should be to identify and verify that equipment installed is qualified and properly maintained. For inspection procedures see section V.

B. ***Chain Saw and Other Multi-position Exhaust Systems***–These exhaust systems are tested in accordance with Society of Automotive Engineers (SAE) Recommended Practice J335b, "Multi-position Small Engine Exhaust System Fire Ignition Suppression." The Standard limits surface and exhaust gas temperatures to 550° F and 475° F respectively, where they can contact flammable materials. It also requires that the system include a spark arrester which is at least 90 percent effective in removing exhaust particles larger than 0.023-inch in diameter. Although other methods may be used and a screen device is not required, a screen device with openings of 0.023-inch or less provides a simple method of arresting exhaust particles regardless of engine operating position. To date, no multi-position device other than the screen type has been developed and qualified.

Qualified units and identification material are reported in section II of this Guide. Unfortunately, identification markings on qualified units are not required, but the catalog section provides sufficient detail to identify qualified models. Screen components should be checked for clogging, deterioration, and proper screen opening size. For inspection procedures, see section V.

C. ***Medium-size, Single-position Application Spark Arresters*** are tested in accordance with the USDA Forest Service Standard 5100-1a. Qualified units and identification material are reported in section 1 of this Guide.

Of the three classifications of spark arresters, these are the most numerous and most difficult to understand from an application standpoint. When we refer to "Single-position Application," we are considering devices where the engine operates in a single position within certain deviational limits. For example, wheeled devices (such as lawnmowers, motorcycles, trucks, etc.) are intended to operate in an up-right position, even though engine and exhaust positions will vary some depending on road grade, banked curves, etc. This is different from chain saws, which may be operated in any position–including inverted.

We test the spark arrester for the position application of intended use, which is determined by the attitude of the exhaust gases as they enter the inlet. If the inlet is horizontal, then the position application is horizontal. If the inlet is pointed vertically upward, then the position application is vertical. If the inlet is pointed vertically downward, then the position application is inverted. Note that the arrester body position has no effect on position application. For examples, see section I, page I-1 of this Guide. An arrester may be tested for more than one position application and often is.

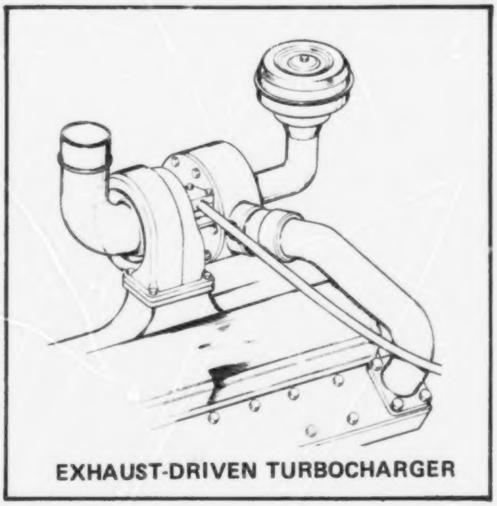
Another factor contributing to potential confusion with medium-size, single-application arresters is that they are intended for use on any engine within their size range. When an arrester undergoes qualification testing, a simulated exhaust flow (cold air) is increased until the resistance to that flow (back pressure at the inlet) is 1 pound per square inch (1 psi). The flow rate corresponding to this back pressure is recorded in cubic feet of flow per minute (cfm), and is referred to as the rated flow of the arrester.

The arrester is tested for arresting efficiency at specific points from rated flow down to one tenth of the rated flow. It is also tested at points above its rated flow. If an arrester has passing efficiencies at all points (including those above its rated flow), it may be used on any size engine. If it has passing efficiencies at all points except above its rated flow, it will be qualified–but not for use above its rated flow. In the later case, the qualified list will indicate its limitations in the remarks column.

Testing arresters to one-tenth of rated flow assures adequate efficiencies, if a large arrester is installed on a small engine. Testing arresters above their rated flow allows those that qualify to be used where a back pressure greater than 1 psi is desirable. This is generally desirable for some two-stroke cycle applications, but seldom (if ever) desirable in four-stroke cycle applications.

In summary, an arrester that has adequate efficiencies at all flow rates may be legally installed on any size engine and it will arrest exhaust particles. This does not assure top engine performance if the arrester is too small and causes excessive back pressure. Limitations, if there are any, on the use of any arrester will be noted in the remarks column of the qualified list.

MUFFLERS–Experience and tests have shown that mufflers, in general, are inadequate as spark arresters. Few muffler devices submitted for formal tests meet the requirements of the spark arrester Standard. However, properly maintained baffled mufflers constructed to automotive industry standards and installed on motor vehicles other than motorcycles are accepted for "on-highway" and "off-road" use in National Forests. Exceptions are for designated areas where a spark arrester is required on cross-country vehicles. Straight-through mufflers (such as some glass-pack designs without baffles) are ***not*** acceptable.


EXHAUST-DRIVEN TURBOCHARGER

Turbochargers qualify as efficient spark arresters when all gases pass through the turbine wheel. The turbine wheel must be turning at all times and there must be no exhaust bypasses to the atmosphere. Depending on design, small closed system bypasses that reroute some of the exhaust back through the engine may be allowable. The illustration of the exhaust-driven turbocharger shows the air intake (right) and the exhaust path through the turbine wheel (left). The action of the rotating turbine wheel causes carbon particles to remain within the confines of the turbodrive section until they are reduced to a harmless size by attrition.

Superchargers which are strictly mechanically driven types do not qualify.

In the selection of any arrester for Forest Service equipment, one must first consider the necessary flow range which can be determined through the use of the proper flow chart in this section of the guide or USDA Forest Service Standard 5100-1a. You must first know the following information on the engine:

1. Carbureted or diesel engine
2. Two- or four-stroke cycle engine
3. Engine displacement in cubic inches or cubic centimeters (motor bikes are usually in cc)
4. Maximum or governed revolutions per minute (rpm).
5. Special features, such as "supercharged" engine—most turbocharger engines don't require arresters.
6. Outside diameter of exhaust pipe
7. Position application of arrester as determined by attitude of arrester inlet once installed.

Now select the proper exhaust flow chart and follow instructions for the use of that individual chart. Once you have determined the theoretical flow rate of the engine, if you want 1 psi back pressure or less, you must select an arrester with a flow rate equivalent to the calculated engine flow rate. Naturally, an arrester with a much higher flow rate will offer less back pressure and an arrester with a smaller flow rate will offer a higher back pressure. For some two-stroke cycle applications, you may intentionally select an undersized arrester to obtain a pack pressure greater than 1 psi. For a particular model, consider only those qualified for the position application and (if possible) with an inlet size compatible with the exhaust pipe—although adapters are allowed. Where possible, choose arresters with good muffling qualities.

Caution should be used in selecting spark arresters for other than Forest Service-owned or -leased equipment. Oversized arresters will work, but are more expensive. Undersized arresters can cause excessive back pressure and result in reduced engine performance and possible engine damage. Never apply an arrester downstream of aspirating devices connected to air filter systems. This can destroy the air filter. In dealing with other than Forest Service equipment, it is best to assist if help in arrester selection is requested, but make sure your calculations are correct and let the customer make the final choice from several commercial suppliers.

CHART I—EXHAUST FLOW IN CUBIC FEET PER MINUTE AT MAXIMUM RATINGS [1] FOR 4-CYCLE DIESEL ENGINES [2]

Engine Displacement (Cubic Inches) [3]	Revolutions Per Minute												RPM [4] Differential
	800	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	
1	0	1	1	1	1	1	1	1	1	1	2	2	0
2	1	1	1	2	2	2	2	2	3	3	3	3	0
3	1	2	2	2	3	3	3	4	4	4	5	5	0
4	2	2	3	3	4	4	4	5	5	6	6	7	0
5	2	3	3	4	4	5	6	6	7	7	8	8	1
6	3	3	4	5	5	6	7	7	8	9	9	10	1
7	3	4	5	5	6	7	8	9	9	10	11	12	1
8	4	4	5	6	7	8	9	10	11	12	13	13	1
9	4	5	6	7	8	9	10	11	12	13	14	15	1
10	4	6	7	8	9	10	11	12	13	15	16	17	1
20	9	11	13	16	18	20	22	25	27	29	31	34	2
30	13	17	20	24	27	30	34	37	40	44	47	51	3
40	18	22	27	31	36	40	45	49	54	58	63	67	4
50	22	28	34	39	45	51	56	62	67	73	79	84	6
60	27	34	40	47	54	61	67	74	81	88	94	101	7
70	31	39	47	55	63	71	79	87	94	102	110	118	8
80	36	45	54	63	72	81	90	99	108	117	126	135	9
90	40	51	61	71	81	91	101	111	121	131	142	152	10
100	45	56	67	79	90	101	112	124	135	146	157	169	11
200	90	112	135	157	180	202	225	247	270	292	314	337	22
300	135	168	202	236	270	303	337	371	404	438	472	506	34
400	180	225	270	315	360	404	449	494	539	584	629	674	45
500	224	281	337	393	449	505	562	618	674	732	786	843	56
600	269	337	405	472	539	606	674	742	809	876	944	1011	67
700	314	393	472	550	629	708	786	865	944	1023	1101	1180	79
800	359	449	540	629	719	809	899	989	1079	1169	1258	1348	90
900	404	506	607	708	809	910	1011	1113	1213	1315	1415	1517	101
1000	449	562	674	786	899	1011	1124	1236	1348	1461	1573	1685	112

[1] Volumetric efficiency 80%; exhaust temperatures 900°F.

[2] For 2-cycle engines, multiply value by 2; for 2-cycle supercharged engines, multiply value by 3.25; for 4-cycle supercharged engines, multiply value by 1.25.

[3] 1 cubic centimeter equals .061 cubic inches (number of cc x .061 = cubic inches).

[4] The "RPM Differential" column gives the difference between RPM columns for interpolation purposes. Entries are to the nearest whole number.

__General__.--All chart values are proportional, so a flow can be calculated for a 1000-cubic-inch engine by doubling the flow figure for an identical engine but with 500-cubic-inch displacement. The same rule applies to revolutions per minute. Therefore, a flow can be calculated of a 3000 maximum rpm engine by doubling the flow value of an identical engine but with 1500 maximum rpm.

The chart may also be used like an interest table. If the engine has a cubic inch displacement of 438 at 2600 revolutions per minute select readings from 400, 30, and 8 at 2600 rpm. The sum of these is the flow rate. When revolutions per minute fall between columns, ie., 1600 to 1800, 1800 to 2000, etc., take the next highest rpm column. To be more exact interpolate by using the "RPM Differential" value.

__EXAMPLE__: A 4-cycle diesel engine has a total displacement of 633 cubic inches. If its maximum rpm is 2600, what is the maximum exhaust flow?

__Solution__ - - - 600 cu. in. displacement @ 2600 rpm = 876; 30 = 44; and 3 = 4; Sum = 924.

CHART II—EXHAUST FLOW IN CUBIC FEET PER MINUTE AT MAXIMUM RATINGS 1/ FOR 4-CYCLE GASOLINE OR PROPANE CARBURETED ENGINES 2/

Engine Displacement (Cubic Inches) 3/	Revolutions Per Minute 1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	RPM 4/ Differential
1	1	1	1	2	2	2	2	2	2	2	2	0
2	2	2	3	3	3	4	4	4	4	5	5	0
3	3	4	4	5	5	5	6	6	7	7	7	0
4	4	5	5	6	7	7	8	8	9	10	11	1
5	5	6	7	8	8	9	10	10	11	12	12	1
6	7	7	8	9	10	11	12	12	13	14	15	1
7	8	9	10	11	12	12	13	14	15	16	17	1
8	9	10	11	12	13	14	15	16	18	19	20	1
9	10	11	12	14	15	16	17	18	20	21	22	1
10	11	12	14	15	16	18	19	21	22	23	25	1
20	22	25	28	30	33	36	38	41	44	47	49	3
30	33	37	41	45	49	54	58	62	66	70	74	4
40	44	49	55	60	66	71	77	82	88	93	99	6
50	55	62	69	75	82	89	96	103	110	117	123	7
60	66	74	82	90	99	107	115	123	132	140	148	8
70	77	86	96	106	115	125	134	144	153	163	173	10
80	88	99	110	121	132	143	153	164	175	186	197	11
90	99	111	123	136	148	160	173	185	197	210	222	12
100	110	123	137	151	164	178	192	206	219	233	247	14
200	219	247	275	301	329	356	383	411	438	466	493	27
300	329	370	411	452	493	536	575	617	658	699	740	41
400	438	493	548	603	658	712	767	822	877	931	986	55
500	548	617	685	754	822	891	959	1028	1096	1165	1233	69
600	658	740	822	904	986	1068	1151	1233	1315	1397	1479	82
700	767	863	959	1055	1151	1247	1343	1439	1534	1630	1726	96
800	877	986	1096	1205	1315	1425	1534	1644	1753	1863	1973	110
900	986	1110	1233	1356	1480	1603	1726	1850	1973	2096	2219	123
1000	1096	1233	1370	1507	1644	1781	1918	2055	2192	2329	2466	137

1/ Volumetric efficiency 80%; exhaust temperatures 1200°F.

2/ For 2-cycle engines, multiply value by 2 and for 4-cycle supercharged engines, multiply value by 1.25.

3/ 1 cubic centimeter equals .061 cubic inches (number of cc x .061 = cubic inches).

4/ The "RPM Differential" column gives the difference between RPM columns for interpolation purposes. Entries are to the nearest whole number.

General.-- All chart values are proportional, so a flow can be calculated for a 1000-cubic-inch engine by doubling the flow figure for an identical engine but with 500-cubic-inch displacement. The same rule applies to revolutions per minute. Therefore, a flow can be calculated of a 3600 maximum rpm engine by doubling the flow value of an identical engine but with 1800 maximum rpm.

The chart may also be used like an interest table. If the engine has a cubic inch displacement of 438 at 2600 revolutions per minute select readings from 400, 30, and 8 at 2600 rpm. The sum of these is the flow rate. When revolutions per minute fall between columns, ie., 1600 to 1800, 1800 to 2000, etc., take the next highest rpm column. To be more exact interpolate by using the "RPM Differential" value.

EXAMPLE: A 4-cycle gasoline engine has a total displacement of 133 cubic inches. If its maximum rpm is 3200, what is the maximum exhaust flow?

Solution --- 100 cu. In. displacement @ 3200 rpm = 219; 30 = 66; and 3 = 7; Sum = 292.

CHART III—EXHAUST FLOW IN CUBIC FEET PER MINUTE AT MAXIMUM RATINGS 1/
FOR 4-CYCLE GASOLINE OR PROPANE CARBURETED ENGINES 2/
SUCH AS MOTORCYCLES, TRAIL BIKES, AND SMALL ENGINES
ENGINE DISPLACEMENT IN CUBIC CENTIMETERS; RPM 3400 to 14000 Inclusive

Engine Displacement		Revolutions Per Minute											
C.C. 3/	Cu. In.	3400	3600	3800	4000	5000	6000	7000	8000	9000	10000	12000	14000
1	.061	0	0	0	0	0	0	0	0	0	0	1	1
2	.122	0	0	0	0	0	1	1	1	1	1	1	1
3	.183	0	0	0	1	1	1	1	1	1	1	2	2
4	.244	1	1	1	1	1	1	1	1	2	2	2	2
5	.305	1	1	1	1	1	1	1	2	2	2	3	3
6	.366	1	1	1	1	1	2	2	2	2	3	3	4
7	.427	1	1	1	1	1	2	2	2	3	3	4	4
8	.488	1	1	1	1	2	2	2	3	3	3	4	5
9	.549	1	1	1	2	2	2	3	3	3	4	5	5
10	.610	1	2	2	2	2	3	3	3	4	4	5	6
16.4	1.00	2	2	3	3	3	4	5	5	6	7	8	9
20	1.22	3	3	3	3	4	5	6	7	8	8	10	12
30	1.83	4	5	5	5	6	8	9	10	11	13	15	18
40	2.44	6	6	6	7	8	10	12	13	15	17	20	23
50	3.05	7	8	8	8	11	13	15	17	19	21	25	30
60	3.66	9	9	10	10	13	15	18	20	23	25	30	35
70	4.27	10	11	11	12	15	18	20	24	26	29	35	41
80	4.88	11	12	13	13	17	20	23	27	30	34	40	47
90	5.49	13	14	14	15	19	23	26	30	34	38	45	53
100	6.10	14	15	16	17	21	25	29	33	38	42	50	59
163.9	10.00	23	25	26	27	34	41	48	54	61	68	82	95
200	12.20	29	30	32	33	42	50	59	67	75	84	101	117
300	18.31	43	45	48	50	63	75	89	100	113	126	151	176
400	24.41	57	61	64	67	84	101	117	134	150	168	201	234
500	30.51	71	76	80	84	105	126	146	167	188	210	251	293
600	36.61	86	91	96	100	126	151	176	201	225	252	302	351
700	42.71	100	106	112	117	147	176	205	234	263	294	352	410
800	48.82	114	121	128	134	168	201	234	267	301	336	402	469
900	54.92	128	136	144	150	189	226	264	301	339	378	453	527
1000	61.02	143	151	161	167	210	251	293	334	376	420	503	596
1639	100.00	232	247	261	272	342	410	477	545	612	685	820	955

1/ Volumetric efficiency 80%; exhaust temperatures 1200°F.

2/ For 2-cycle engines, multiply value by 2.

3/ 1 cubic centimeter equals .061 cubic inches (number of cc x .061 = cubic inches).

General.--All chart values are proportional, so a flow can be calculated for a 1000-cubic-centimeter engine by doubling the flow figure for an identical engine but with 500-cubic-centimeter displacement. The same rule applies to revolutions per minute. Therefore, a flow can be calculated of a 3000 maximum rpm engine by doubling the flow value of an identical engine but with 1500 maximum rpm.

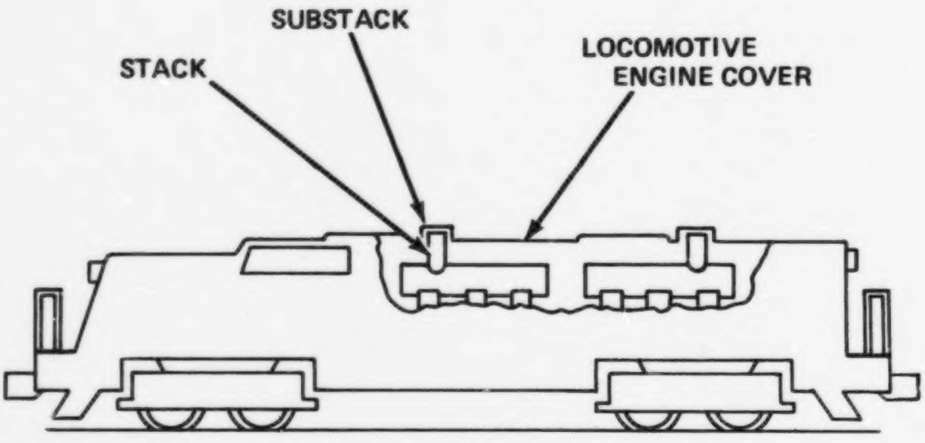
The chart may also be used like an interest table. If a 2-cycle motorcycle has a cubic centimeter displacement of 125 at 7500 revolutions per minute, select readings from 100, 20, and 5 in the 8000 rpm column. The sum of these is the flow rate for a 4-cycle engine. When revolutions per minute fall between columns, ie., 7000 to 8000, etc., take the next highest column. To be more exact interpolate. For the 2-cycle engine multiply the chart value by two.

SECTION V—INSPECTION

A complete understanding of the material in section IV will be very helpful in understanding section V.

INSPECTION OF LOCOMOTIVE SPARK ARRESTERS. There are only two types of locomotive spark arresters, the single inletted ***external*** type (see p. 482). and the multi-inletted ***internal*** type (see p. 482 and 483). Both designs must carry the manufacturer's name or trademark and a model number exactly as they appear on the qualified list. Flow rates are not provided, because the units are generally designed for a specific engine and are not interchangeable. The internal arresters are often referred to as manifold arresters, and there are many models built up from basic body types, basic leg designs, and stack combinations. The qualified list indicates which combination of components are used in each model, and sketches of these components are provided on pages 482 and 483.

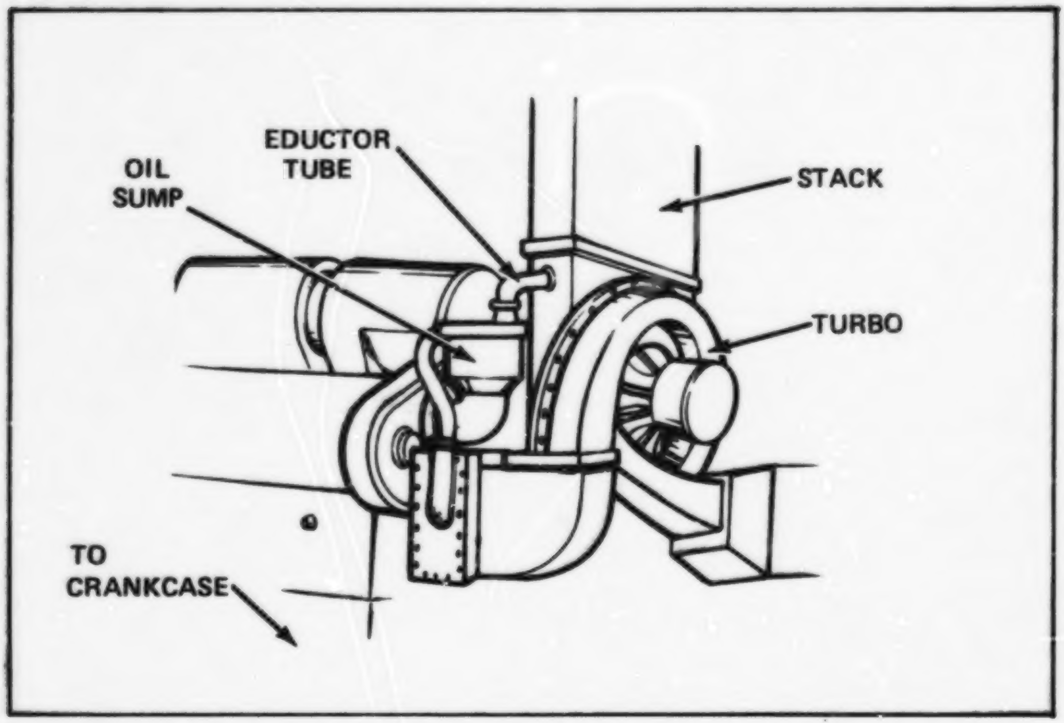
Once a locomotive spark arrester is identified as a qualified unit, it should be checked for exhaust leaks. This could occur through a cracked weld, failed gasket, etc.—and is generally detected by a blackened or otherwise discolored area immediately around the leak. The exhaust generally discharges into a large stack referred to as a substack. This is normally cleaned under a maintenance program, but the inside of the substack and the area near the end of the exhaust stack should be checked for carbon deposits. Hot particles breaking loose from this area can ignite flammable materials.



TYPICAL LOCOMOTIVE

Finally the arrester traps should be opened to determine if they are being properly maintained. The traps should not be completely full and deposits should drop out easily with a little wrapping. Sometimes a wire probe is helpful in dislodging material. Obviously, a full trap indicates a need for more frequent cleaning to assure proper operation of the arrester.

Turbocharged engines are considered to be adequately arrested, but there is an inspection problem. Positive crankcase ventilation is provided from a venturi device in the exhaust stack. This is shown schematically below. Some oil vapors form droplets in the eductor tube and are then cooked by the hot exhaust gases. This results in carbonaceous deposits, which if not mechanically removed, will break off and be exhausted at high temperature–possibly into flammable material.



INSPECTION OF CHAIN SAW AND OTHER MULTI-POSITION EXHAUST SYSTEMS. Here we are dealing with a complete exhaust system which considers any exposed area that gets hot, and must include a spark arrester that is at least 90 percent efficient. The spark arrester design is not required to employ a screen device that mechanically retains particles larger than 0.023 inch but at present there are no multi-position devices other than screen type which are qualified. We will deal with chain saw multi-position exhaust systems first.

In identifying a chain saw exhaust system you should note the model and brand name. The catalog section groups the model series (such as McCulloch) and then groups all series of a particular brand (such as McCulloch Mac and McCulloch PM) in one section. Catalog photographs of assembled models and disassembled components can be used to quickly determine if an exhaust system is a qualified unit.

Once a unit has been tentatively identified as qualified, check the appropriate catalog page to determine if the unit is completely and properly equipped. Take particular notice if bumper spikes (logging spikes) are required or optional or, in some instances, if a special bumper spike design is required. Quite often bumper spikes are required to prevent front-mounted exhaust systems from getting too close to the cut. When this Guide indicates bumper spikes are not required, or are optional, the saw has been tested and met temperature requirements without bumper spikes. A similar situation holds true for the handle bar which, at a minimum, must be a half wrap. On some chain saws, a full wrap handle bar is required–especially with some side-mounted exhaust systems to prevent hot surfaces or exhaust gas exits from getting too close to flammable material. When the Guide indicates a half-wrap bar is adequate or a full-wrap bar is optional, it means the saw was tested and met temperature requirements with a half-wrap bar.

The most important part of a screen type arrester is the screen. The screen opening must not exceed 0.023 inch and the screen must be free of punctures or excessive plugging. The screen, baffles, etc. for individual multi-position exhaust systems are illustrated in the catalog for identification purposes. Screen openings are generally checked for maximum size with a no-go wire gauge which is 0.024 inch in diameter. and should not pass through screen openings more than 10 percent of total tries with random selection and under very light pressure. Two sources for these gauges are:

Meyer Gauge Co., Inc.
230 Burnham Street
S. Windsor, CN 06074
(203) 528-6527

Donkirk Tool Supply Co.
P. O. Box 1348
Covina, CA 91722
(818) 966-0671

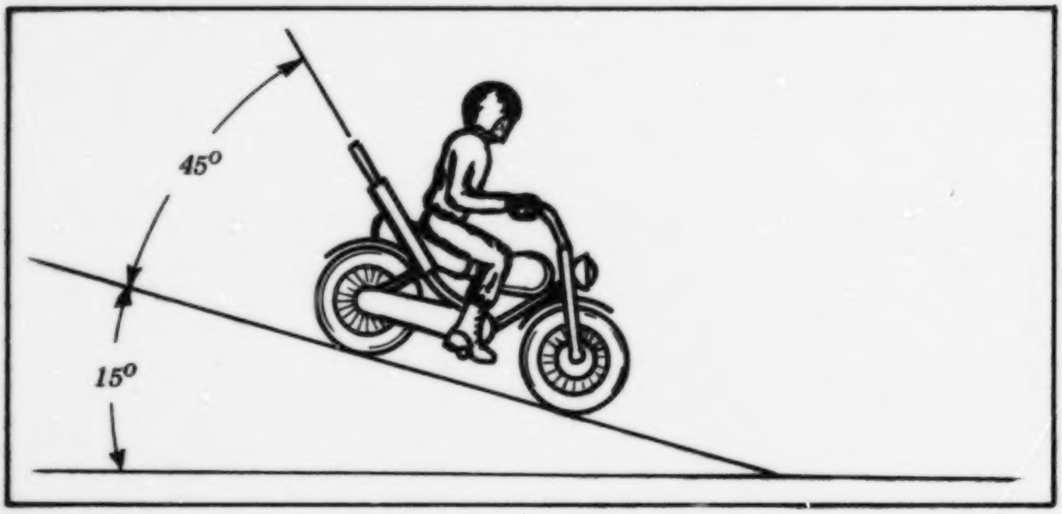
Finally, the general condition of the saw should be checked. Make sure no saw components are damaged. Check interiors for chips and other debris that could be over heated or prevent proper circulation of cooling air.

INSPECTION OF MULTI-POSITION EXHAUST SYSTEMS FOR APPLICATIONS OTHER THAN CHAIN SAWS. Certain handheld, engine-powered devices (such as post hole diggers, string grass trimmers, etc.) may be fitted with qualified units. The State of California requires that all handheld, engine-powered tools manufactured after June 30, 1978 be equipped with qualified exhaust systems.

INSPECTION OF MEDIUM SIZE, SINGLE APPLICATION, SPARK ARRESTERS. The first step in an inspection is identification of the unit. As a condition of qualification, a unit must carry the manufacturers name or trademark and the model number–exactly as it appears on the qualified list in section 1 of this Guide. If the identification markings are not legible for any reason, you may be able to verify the model identity through use of the Guide. First measure the inlet diameter. Then check the appropriate identification key, Note that inlet diameters less than 1½ inches equal small category. Inlet diameters larger than 1½ to 3 inches equal medium category. Inlet diameters over 3 inches equal large category. Next, note the general body features to determine what shape and description group the unit falls into. Finally check each model within the group, using the appropriate catalog pages, to verify which model exactly matches the dimensions of the unit to be identified.

When a manufacturer has a qualified unit, he is usually eager to establish that fact. It is not a requirement, but the manufacturer is allowed to indicate on the arrester that it is qualified or approved by the Forest Service. A totally unmarked unit almost always turns out to be an untested unit or a muffler. Without proper identification, it may be legally rejected–but attempted identification by the above procedures is encouraged. Deviations in proper marking should be reported to the manufacturer (or the San Dimas Equipment Development Center at 818/332-6231).

Once a unit is identified, the qualified list will provide you with its rated flow and position application. Remember, the position application is determined by the attitude of the exhaust as it enters the arrester. If you have further questions on position application review section IV. Examine the installation, making sure the arrester is not tilted more than 45 degrees from its intended position application. Note that USDA Forest Service Standard 5100-1a allows 60 degrees deviation, but at least 15 degrees of this should be reserved for deviations because of road grade or slope. As for flow rate, unless there are restrictions on the use of a qualified model, it may be used on any size engine.



If restrictions exist, they will be stated in the remarks column of the qualified list. Fitting a nonrestricted arrester to any size engine will not assure optimum engine running conditions. An oversized arrester can be expensive and an undersized arrester can lower engine performance, and could even cause engine damage. For proper sizing, review medium-size, single-position application spark arresters in section IV of this Guide.

The final step in this inspection is to determine the condition of the equipment in question. The complete exhaust system, including the spark arrester, should be checked for exhaust leaks and other signs of component deterioration. Screen type arresters should be checked for maximum screen openings, using the screen inspection procedures described for inspection of chain saw exhaust systems. The trap type arresters should be checked to see that inlets and outlets are firm and the gas spinning device is intact (see cutaway of a trap type arrester depicted on page 492. Where possible, interiors should be checked with a flashlight rather than feeling with a wood probe that might damage internal parts. The trap cover should be removed (it may be a pipe plug) to see how easily trapped material falls out. Note how tightly material is packed in. Now with engine at fast idle, wrap the arrester and note, by amount of material expelled, if trap was partially or completely full. Trap inspection should be done in a fire safe area. Arresters with badly dented bodies may not function properly and should be replaced. Those with damaged or missing internal parts should also be replaced. If an arrester inlet has no stops to limit insertion of the exhaust pipe, care should be taken to avoid inserting the exhaust pipe too far into the inlet. For example the exhaust pipe can be pushed against the solid center of a stationary louvered fan and block the exhaust flow.